PUBLIC
S.F.
LIBRARY

MAIN LIBRARY

SAN FRANCISCO PUBLIC LIBRARY

REF

796.5 G87E

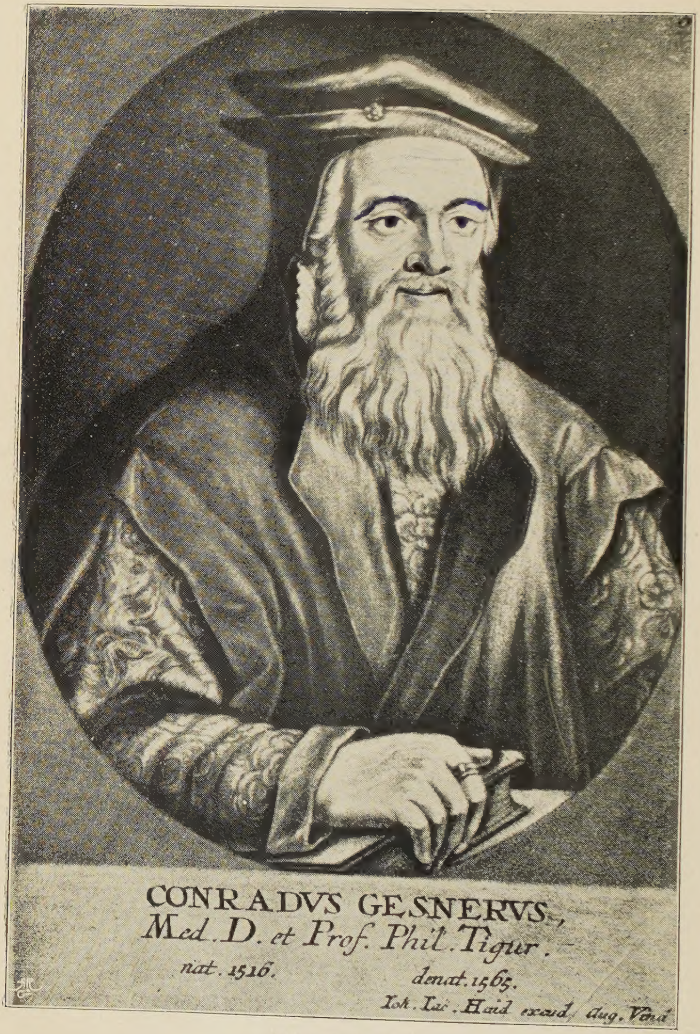
144708

FORM 3431 10-51

SAN FRANCISCO PUBLIC LIBRARY
3 1223 00527 9337

Digitized by the Internet Archive
in 2025

https://archive.org/details/earlymountaineer0000unse


CONRADVS GESNERVS,
Med. D. et Prof. Phil. Tigur.
nat. 1516.
denat. 1565.
Ioh. Iac. Haid excud. Aug. Vind.

CONRAD GESNER.

[*Frontispiece.*

THE EARLY MOUNTAINEERS

By FRANCIS GRIBBLE

ILLUSTRATED

S. F. PUBLIC LIBRARY

LONDON: T. FISHER UNWIN
PATERNOSTER SQUARE. 1899

BRADBURY, AGNEW, & CO. LD., PRINTERS,
LONDON AND TONBRIDGE.

REF
796.5
G87e

144708

[*All rights reserved*]

PREFACE.

An admirable outline of the early history of mountaineering was contributed by Sir Frederick Pollock to a volume of the Badminton Library. Several valuable (though not absolutely complete) bibliographies of the subject have been compiled by the Rev. W. A. B. Coolidge. Isolated incidents in mountaineering annals have been admirably treated in monographs and contributions to Alpine periodicals by Mr. C. E. Mathews, Mr. Douglas Freshfield, the late Mr. Longman, M. Charles Durier, M. Camena d'Almeida, M. Puiseux, Mlle. Mary Paillon, Signor Uzielli, and other writers. It seemed to me, however, that room still remained for a book which should endeavour to narrate, within the convenient limits of a single volume, all that is most interesting and important about the beginnings of exploration in the Alps, the Pyrenees, and the Apennines. Various other mountain ranges and peaks, of course, have histories well worth writing: the Andes, the Caucasus, Ararat, Popocatapetl, and many more. I hope to treat of them in another work; it was quite impossible to find space to say anything about them here.

I am aware, of course, that, in describing the early history of Chamonix and Mont Blanc, I am covering ground that has lately been traversed by no less an authority than Mr. C. E. Mathews; and, so far as the great mountain itself is concerned, I cannot pretend that I have much of importance to add to Mr. Mathews' excellent exposition. The temptation was strong to leave this branch of the subject severely alone, merely referring those who were curious about it to Mr. Mathews' monograph. I felt, however, that an account of the early mountaineers, which said nothing about the pioneers of the highest peak in Europe, would be sadly incomplete; and wishing, so far as possible, to avoid the charge of incompleteness, I decided that what I had written should be allowed to stand, with only such alterations as were necessitated by the careful perusal of Mr. Mathews' pages.

My method has been, wherever it seemed feasible, to let the writings of the early mountaineers speak for themselves. Possibly the number of textual quotations thus necessitated will strike some readers as excessive. Most of the documents which I have reproduced, however, are so rare that even collectors with long purses cannot easily procure them; and I am quite persuaded that all serious students of the subject will be more interested in the quaint originals than in any modern paraphrase.

In conclusion, I wish to make grateful acknowledgments to all those who, whether consciously or unconsciously, have assisted me in my task; to Mr. Coolidge, whose bibliographies did so much to facilitate research; to Mr. Douglas Freshfield, whose article on Father Placidus à Spescha, in an early volume of the *Alpine Journal*, was very helpful; to Mr. Mathews, who kindly lent me a rare and valuable book, not then to be found at the British Museum; to M. Charles Durier, who kindly helped me to puzzle out the mystery of Dr. Paccard's pamphlet; to Mlle. Mary Paillon, who kindly accorded me her permission to use all the material contained in her monograph on Mlle. d'Angeville; and to Messrs. Blackwood, who kindly gave me leave to reprint Mr. Henry Reeve's translation of Petrarch's account of his ascent of Mont Ventoux.

FRANCIS GRIBBLE.

April 19*th*, 1899.

CONTENTS.

CHAPTER I.

The Hebrews—The Greeks—The Romans—The Beginning of the Middle Ages—Early Ascents of Roche Melon—Remarks of the Seigneur de Villamont, of Mr. Thomas Coryate, and of Mr. John Murray *pp.* 1—13

CHAPTER II.

An Ascent of Pic Canigou by Peter III. of Arragon—The Dragon that he saw there—The Case for Dragons in the Mountains *pp.* 14—17

CHAPTER III.

The first of the Sentimental Mountaineers—An Ascent of Mont Ventoux, near Vaucluse, by Petrarch . . . . *pp.* 18—24

CHAPTER IV.

The Ascent of "Monboso" by Leonardo da Vinci—Where and what is "Monboso"?—The Views of Mr. Douglas Freshfield and of Signor Uzielli . . . . *pp.* 25—27

CHAPTER V.

The Ascent of Mont Aiguille by Dompjulian de Beaupré in 1492—The *procés-verbal* of the Expedition preserved in the Archives of Grenoble—A subsequent Ascent by a Peasant in 1834 . *pp.* 28—37

CHAPTER VI.

Early Ascents by Swiss Scholars—An Ascent of the Stockhorn by a Berne Professor—His Latin Verses on the Subject . . *pp.* 38—42

CHAPTER VII.

The Early History of Pilatus—The Pilate Legend—An Attempted Ascent by Clergymen in 1307—The Two Ascents of 1518—The Ascent by Conrad Gesner in 1555—The Truth of the Legend tested by Experiment in 1585 . . . . *pp.* 43—50

CHAPTER VIII.

Conrad Gesner—His Enthusiasm for the Mountains—His Ascent of Pilatus—His Broad Views about the Pilate Legend . . *pp.* 51—62

CHAPTER IX.

Josias Simler and the Beginnings of Snow Craft—His Directions for Travelling on Glaciers . . . . *pp.* 63—68

CHAPTER X.

Johann Jacob Scheuchzer—His Views about Glaciers—His Views about Dragons . . . . *pp.* 69—81

CHAPTER XI.

The Early History of Chamonix—An appreciation of the Glaciers by Monsieur Le Pays in 1669—The Excursion of Windham and Pococke in 1741—The Expedition of Peter Martel in 1742 . . *pp.* 82—88

CHAPTER XII.

Windham's Narrative . . . . *pp.* 89—100

CHAPTER XIII.

Martel's Narrative . . . . *pp.* 101—121

CHAPTER XIV.

Later Visitors to Chamonix—An Unsuccessful Attempt to ascend the Aiguille du Dru . . . . *pp.* 122—127

CHAPTER XV.

Jean André de Luc, the Pioneer of the Snow Peaks—His Two Ascents of the Buet . . . . pp. 128—138

CHAPTER XVI.

M. Murith, Prior of the Great Saint Bernard—His Ascent of Munt Vélan in 1779. . . . . pp. 139—147

CHAPTER XVII.

Marc-Théodore Bourrit, the Historian of the Alps . pp. 148—161

CHAPTER XVIII.

Jacques Balmat, the Pioneer of Mont Blanc—His great Climb—His Interview with Alexandre Dumas—His Death . . pp. 162—173

CHAPTER XIX.

The Case for Dr. Paccard—His Lost Book—The Controversy in the *Gazette de Lausanne*—The Later Years of Jacques Balmat pp. 174—181

CHAPTER XX.

Father Placidus à Spescha, the Pioneer of the Tödi Group pp. 182—187

CHAPTER XXI.

The Pioneers of Monte Rosa—John Joseph Beck—Count Morozzo—Giordani—Henri Maynard—Parrot, Zumstein, and Welden pp. 188—200

CHAPTER XXII.

The Pioneers of the Oberland—Early Legend—The First Alpine Journal—Ascent of the Jungfrau and the Finster-Aar Horn by the Meyers—The Pioneers of the Tyrol . . . . pp. 201—210

CHAPTER XXIII.

The Early History of the Pyrenees—An Ascent of the Pic du Midi in the Sixteenth Century . . . . . . pp. 211—217

CHAPTER XXIV.

Ramond de Carbonnière, the Pioneer of the Pyrenees . *pp.* 218—232

CHAPTER XXV.

Orazio Delfico, the Pioneer of the Apennines . . *pp.* 233—239

CHAPTER XXVI.

The First Lady Mountaineers — Marie Paradis and Henriette d'Angeville . . . . *pp.* 240—250

CHAPTER XXVII.

The Early Accidents—The Death of Eschen on the Buet—The Death of Escher on the Col de Balme . . . . . *pp.* 251—255

Appendix A . . . . *pp.* 257—258
Appendix B . . . . *pp.* 259—261
Appendix C . . . . *pp.* 262—263
Appendix D . . . . *pp.* 264—270
Appendix E . . . . *p.* 271
Appendix F . . . . *pp.* 272—275
Appendix G . . . . *pp.* 276—279
Appendix H . . . . *pp.* 280—294
Appendix I . . . . *pp.* 295—303
Appendix J . . . . *pp.* 304—306
Appendix K . . . . *pp.* 307—308
Appendix L . . . . *pp.* 309—311
Appendix M . . . . *pp.* 312—330

LIST OF ILLUSTRATIONS.

Facing page

Portrait of Conrad Gesner. From an old print in the British Museum . . . . . . *Frontispiece*

Old View of Susa. Engraved by Johannes Blaeu, of Amsterdam. From *Theatrum Statuum Regiæ Celsitudinis Sabaudiæ Ducis, Piedmontii Principis, Cypri Regis.* Amsterdam, 1582 . 5

A Winged Dragon in the Mountains. From Scheuchzer's *Οὐρεσιφοίτης Helveticus.* Zurich, 1723 14

Portrait of Petrarch. Painted by Guariente. Engraved by Gandolfi. From an old print in the British Museum . 18

Leonardo da Vinci. From the original drawing by Leonardo da Vinci. Engraved by F. Bartolozzi, R.A. 25

Old View of Grenoble. From a print in the British Museum 28

View of Thun. From *Thesaurus Philo-Politicus* (compiled by Daniel Meisner). Frankfort, 1625 38

Portrait of Vadianus (Joachim von Watt). From an old print in the British Museum 43

The Earliest Known Map of Switzerland. Reproduced from Dr. Konrad Tuerst's *Karte der Eidgenossenschaft.* 1495 . 44

View of Pilatus. Northern face. From Cappeller's *Pilati Montis Historia.* Drawn by the Author 46

Map of Pilatus. From *Pilati Montis Historia.* By Maur. Antonius Cappeller. Basle, 1767. Drawn by the Author . 51

Facsimile of Title-Page of Conrad Gesner's *Descriptio Montis Fracti.* Zurich, 1555 53

View of Lucerne. From *Cosmographia Universalis,* by Sebastian Muenster. Basle, 1550, fol. 54

Facing page

Portrait of Josias Simler. From an old print in the British Museum 63

Portrait of Johann Jacob Scheuchzer. Painted by Melchior Füsslin, of Zurich. Engraved by Joseph Nutting, of London 69

An Encounter with a Dragon. From Scheuchzer's *Οὐρεσιφοίτης Helveticus.* Zurich, 1723 79

A Dragon in the Alps. From Scheuchzer's *Οὐρεσιφοίτης Helveticus.* Zurich, 1723 80

A Dragon in the Alps. From Scheuchzer's *Οὐρεσιφοίτης Helveticus.* Zurich, 1723 81

View of the Glacier of Faucigny. From *Die Eisgebirge des Schweizerlandes.* By Gottlieb Sigmund Gruner Berne, 1760. Drawn and engraved by A. Zingg 82

Portrait of Benjamin Stillingfleet, Esquire. From a painting by Zoffany. Engraved by James Basire. Reproduced from *Literary Life and Select Works of Benjamin Stillingfleet.* London, 1811 87

Portrait of William Windham, Esquire. From a painting by Schackleton. Engraved by James Basire. Reproduced from *Literary Life and Select Works of Benjamin Stillingfleet.* London, 1811 89

Portrait of Robert Price, Esquire. From a painting by Zoffany. Engraved by James Basire. Reproduced from *Literary Life and Select Works of Benjamin Stillingfleet.* London, 1811 94

View of Ye Ice Valley and Mountains that Surround it, from Mount Anver. Drawn by Robert Price. Engraved by Vinares. From *An Account of the Glacières in Savoy.* London, 1744 101

View of the Mer de Glace. From Bourrit's *Description des Glacières.* Geneva, 1773. Drawn by Bourrit . . . 116

Pierre Martel's Map of the Valley of Chamonix. From *An Account of the Glacières in Savoy.* London, 1744 . . 121

Panoramic View from the Buet. From *Itinéraire de la Vallée de Chamonix, d'une partie du Bas-Vallais, et des Montagnes avoisinantes.* By T. P. Berthoud Van Berchem. Lausanne, 1790 128

Facing page

View of the Lac de Chède and Mont Blanc. From Bourrit's *Nouvelle Description des Glacières.* Geneva, 1787. Drawn by Bourrit. Engraved by Angel Moitte . . . 136

View of the Valley of Chamonix. From Bourrit's *Description des Glacières.* Geneva, 1773. Drawn by Bourrit . . 148

View of the Glacier des Bossons. From Bourrit's *Nouvelle Description des Glacières.* Geneva, 1787 150

View of the Grindelwald Glacier. From Bourrit's *Nouvelle Description des Alpes Pennines et Rhétiennes.* Geneva, 1783. Drawn by Bourrit. Engraved by Angel Moitte . . . 153

View of the Rhône Glacier. From Bourrit's *Nouvelle Description des Alpes Pennines et Rhétiennes.* Geneva, 1783. Drawn by Bourrit. Engraved by Angel Moitte . . . 161

Portrait of Jacques Balmat. From an old print in the British Museum 162

Portrait of Dr. Paccard. From an old print in the British Museum 174

View of Monte Rosa. From *Voyages Dans les Alpes.* By Horace Benedict de Saussure. Neuchâtel, 1796 . . . 188

Early Mountaineers on the Jungfrau. From the frontispiece of *Naturhistorische Alpenreise*, von F. J. Hugi. Solothurn, 1830 201

View of the Lower Grindelwald Glacier. From *Die Eisgebirge des Schweizerlandes*, by Gottlieb Sigmund Gruner. Berne, 1760. Drawn by Von Huber, in 1720. Engraved by A. Zingg 202

View of the Snow Peaks from Grindelwald. From Scheuchzer's *Οὐρεσιφοίτης Helveticus.* Drawn by Meyer . . 205

Old View of the Gross Glockner. From *Mineralogische-botanische Lust-reise, von dem Berg Terglon in Krain zu dem Berg Glokner in Tyrol im Jahr*, 1779 *und* 81. By Balthasar Hacquet. Vienna, 1784 209

View of the Pyrenees, showing the Summit of Mont Perdu. Drawn by Ramond de Carbonnière. Engraved by Baltard. Reproduced from Ramond's *Voyages au Mont Perdu et dans la Partie adjacente des Hautes Pyrénées.* Paris, 1801 . . . 218

Facing page

VIEW OF GRAN' SASSO D'ITALIA. From *Dell' Interamnia Pretuzia.* By Gio. Bernardino Delfico. Naples, 1812 . . 233

PORTRAIT OF HENRIETTE D'ANGEVILLE. Drawn by Herself . 240

ASCENSION DU MONT BLANC PAR MLLE. H. D'ANGEVILLE. From the collection of M. Bastard, of Geneva 245

VIEW OF BERNE. From *Thesaurus Philo-Politicus.* Compiled by Daniel Meisner. Frankfort, 1625 276

VIEW OF LUCERNE. From *Thesaurus Philo-Politicus.* Compiled by Daniel Meisner. Frankfort, 1625 280

VIEW OF SOUTHERN FACE OF PILATUS. From Cappeller's *Pilati Montes Historia.* Drawn by the Author . . . 282

OLD VIEW OF PILATUS. From Cappeller's *Pilati Montes Historia.* Drawn by the Author 285

VIEW OF THE GRINDELWALD GLACIERS. From Scheuchzer's Οὐρεσιφοίτης *Helveticus.* Zurich, 1723. Drawn by Meyer . 304

GRAN' SASSO D'ITALIA. Another View from *Dell' Interamnia Pretuzia.* By Gio. Bernardino Delfico. Naples, 1812 . . 312

THE EARLY MOUNTAINEERS.

CHAPTER I.

The Hebrews—The Greeks—The Romans—The Beginning of the Middle Ages—Early Ascents of Roche Melon—Remarks of the Seigneur de Villamont, of Mr. Thomas Coryate, and Mr. John Murray.

The earliest mountain ascent of which any record has been preserved is the ascent of Mount Ararat by the patriarch Noah. It was accomplished in a combination of circumstances which is exceedingly unlikely to recur, and scarcely falls within the scope of the present inquiry. There follow, after considerable intervals of time, the stories of the ascent of Mount Moriah by the patriarch Abraham, and of the ascents of Sinai and Pisgah by the patriarch Moses. But, though the facts that Abraham climbed a mountain in order to offer a sacrifice, Moses in order to acquire the Tables of the Law, and the Saviour Himself in order to pray, indicate that the Hebrew race had, from the earliest ages, a true feeling for the solemn associations of the mountain-top, there is nothing in Hebrew literature with which the historian of mountaineering may legitimately concern himself.

An ascent of Etna by the philosopher Empedocles is the principal contribution of the ancient Greeks. The story of his endeavour to win himself a reputation for immortality by disappearing mysteriously into the crater, and of the discrimination exercised by the volcano, which retained the philosopher but rejected his brazen slippers, is so well known that it would be superfluous to do more than allude to it in passing. A statement by Polybius, quoted by Strabo,[1] to the effect that it takes five days to climb the Alps, whereas Taygetus, Parnassus, Olympus, Pelion, Ossa, Hæmus and Rhodope can each be ascended in a single day, is the voice, apparently, of conjecture rather than of experience. The only one of these peaks which we know to have been climbed in ancient times is Hæmus; and Philip of Macedon—the mountaineer in question—took four days to get to the summit. He had fancied that by so doing he would be able to see the Adriatic and Ægean seas simultaneously, but he was disappointed in his expectations. For the rest, there is a story to the effect that the geometer Xenagoras measured the height of Mount Olympus. There is no indication, however, that he climbed it, or even attempted to climb it; and though his results are not glaringly inaccurate, it is not easy to comprehend the processes by which he arrived at them. Here is the account of them, taken from North's Translation of Plutarch's *Life of Æmilius Paulus*:—

"In this place, the Mount Olympus is above tenne furlong highe, as appeareth in a place ingraven by him that measured it.

"Olympus mounte is just, by measure made with line,
Twelve hundred seventie paces trodde, as measure can assigne,
The measure being made, right over against the place,
Whereat Apolloes temple stands, and built with stately grace.
Even from the leavell plott, of that same countries plains,
Unto the toppe which all on highe, doth on the hill remaine.
And so Xenagoras, the sonne of Eumelus,
In olden dayes, by measure made, the same dyd finde for us.
And did engrave it here in writing for to see,
When as he tooke his latest leave (Apollo god) of thee.

---

[1] ό δ' αὐτὸς ἀνὴρ περὶ τοῦ μεγέθους τῶν Ἄλπεων καὶ τοῦ ὕψους λέγων παραβάλλει τὰ ἐν τοῖς Ἕλλησιν ὄρη τὰ μέγιστα, τὸ Ταύγετον τὸ Λυκαῖον

"Yet the Geometricians saye, that there is no mountaine higher, nor sea deeper, than the length of tenne furlonges; so that I think this Xenagoras (in my opinion) did not take his measure at a venture, and by gesse, but by true rules of the arte, and instrumentes Geometricall."

Roman literature is equally barren of mountaineering reference. Hannibal is not to be called a mountaineer because he crossed the Alps upon his way to Italy, nor can Spartacus, the gladiator, claim the title because he encamped in the crater of Vesuvius at a period when that crater was suitable for the purposes of a camping ground. The claims of the Emperor Hadrian, however, are better founded. He, at all events, made an ascent of Etna for a purpose which a modern mountaineer can appreciate. According to that dry chronicler, Spartianus,[1] he wished to see the sun rise,—a spectacle which "is said to be a medley of many colours, like the rainbow." And there is evidence that others of the ancient Romans climbed Etna both before and after him. Seneca[2] recommends the ascent in one of his letters; and there is a ruin of Roman origin, known as the *Torre del Filosofo*, situated not far below the summit, and probably dating from about this period. But this is all. There is no more mountaineering of any kind to be recorded before the beginning of the middle ages.

Even the men of the middle ages, however, climbed their mountains very seldom, preferring, for the most part, to regard them, from as great a distance as possible, with mingled sentiments of disgust and awe. The declaration

---

Παρνασσον ῎Ολυμπον Πήλιον ῎Οσσαν, ἐν δὲ Θράχῃ Αἶμον Ροδοπην Δουνακα: καὶ φήσιν ὅτι τούτων μὲν ἕκαστον μικρôυ δεῖν, αὐθημερὸν εὐζώνοις ἀναβῆναι δύνατον, αὐθημερον δὲ καὶ περιελθεῖν, τὰς δ᾽ ῎Αλπεις οὐδ᾽ ἂν πεμπταῖος ἀνάβαίη τίς·

[1] Post, in Siciliam navigavit, in qua Aetnam montem conscendit ut solis ortum videret arcus specie, ut dicitur, varium.

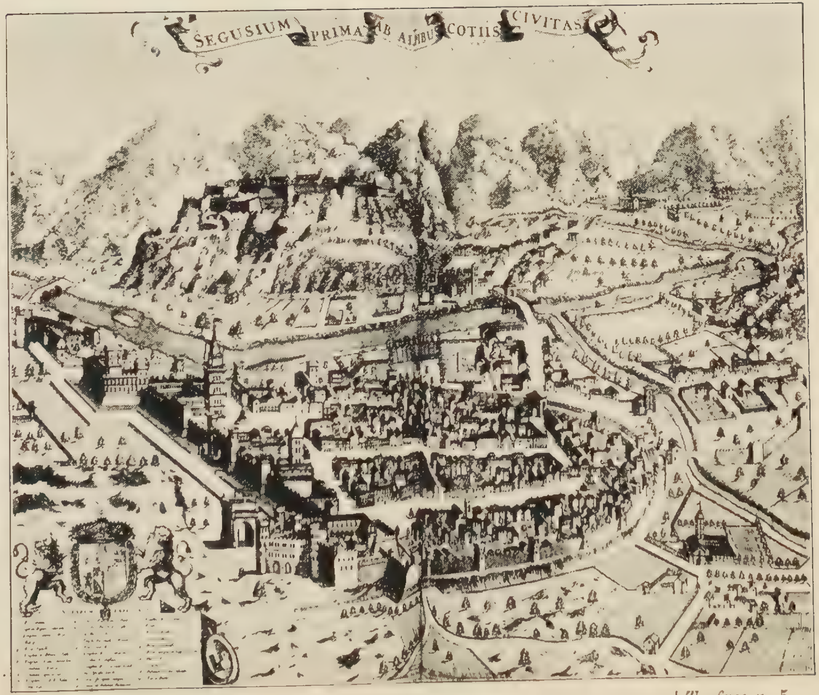
[2] Si hæc mihi præscripseris, tunc tibi andebo mandare ut in honorem meum Aetnam quoque ascendas.

of the great Bishop Berkeley, after his passage of the Mont Cenis, that he "was put out of humour by the most horrible precipices," belongs to comparatively recent times. An earlier, and therefore a more characteristic outburst, is that of Master John de Bremble, monk of Christ Church, Canterbury, who found himself at the top of the Great Saint Bernard in the year 1188, and addressed a letter thence to his sub-prior Geoffrey. His remarks are quoted in Stubbs' *Lectures on the Study of Mediæval and Modern History*.

"I have been," writes the ecclesiastic, "on the Mount of Jove; on the one hand looking up to the heavens of the mountains, on the other, shuddering at the hell of the valleys, feeling myself so much nearer heaven that I was sure that my prayer would be heard. 'Lord,' I said, 'restore me to my brethren, that I may tell them that they come not to this place of torment.' Place of torment, indeed, where the marble pavement of the stony ground is ice alone, and you cannot set your foot safely; where, strange to say, although it is so slippery that you cannot stand, the death into which there is every facility for a fall is certain death."

This, we may take it, was the normal mediæval view of mountains, and the mediæval theories of the phenomena of the mountain-tops were just what one would expect under the circumstances. As witness the following account of the phenomena prevailing on Mount Athos, taken from the writings of that celebrated traveller, Sir John Mandeville:—

"There is another Hille, that is clept Athos, that is so highe, that the Schadewe of hym rechethe to Lempne, that is an Ile; and it is 76 Myle betwene. And aboven, at the top of the Hille is the Eir so cleer, that Men may fynde no Wynd there. And therfore may no Best lyve there; and so is the Eyr drye. And Men seye in theise Contrees, that


SEGUSIUM PRIMA AB ALPIBUS COTIIS CIVITAS

OLD VIEW OF SUSA.

[To face p. 5.

Philosophres som tyme wenten upon theise Hilles, and helden to here Nose a Spounge moysted with Watre, for to have Eyr; for the Eyr above was so drye. And aboven, in the Dust and in the Powder of the Hilles, thei wroot Lettres and Figures with hire Fingres: and at the Zeres end thei comen azen, and founden the same Lettres and Figures, the whiche thei hadde writen the Zeer before, withouten ony defaute. And therfore it semethe wel, that theise Hilles passen the Clowdes and joynen to the pure Eyr."

At a period when theories of this kind prevailed, mountain ascents were naturally very rare occurrences. Now and again, however, we find one, and it is interesting to be able to trace the growth of the human intelligence in this connection, by taking the mountain which makes the earliest appearance in mountaineering history, and showing from contemporary records in what a different spirit mountaineers have regarded it in different ages. The mountain in question is the Roche Melon, near Susa, which long enjoyed the reputation of being the highest in Savoy, and the first attempt to ascend it is recorded by an anonymous Chronicler of the Monastery of Novalesa, who wrote in the half-century preceding the Norman Conquest. The chapter which the chronicler consecrates to the subject runs as follows:—

"THE CHRONICLE OF NOVALESA.

"CHAPTER V.

"*Concerning the Mount of Romulus, from whom the mountain got this name.*

"To the left of this monastery lies Mount Romuleus, which is loftier than all the mountains adjoining it. On this mountain a certain monstrous and avaricious King Romulus (from whom it got its name) is said to have lived, in former days, in the summer seasons, on account of the coolness and pleasantness of the situation, or of the lake. This mountain, therefore, as we have said, lies round about the aforesaid monastery, on the left-hand side, and at its base is the road to Burgundy ; and the common people say that the mountain harbours various wild beasts, just as Mont Cenis does, bears, steinbok, goats, and others suitable for the purposes of the hunter. From it there rises a stream which flows down the steep face of the very cliffs, and in the stream a salt spring is said to rise, and to flow along, blended with it. But steinbok, and goats, and domestic sheep often meet at the stream, on the bank of the channel, at the point where it spreads out into the plain, on account of their passion for salt, and are very frequently caught there. And they say that the aforesaid Romulus had collected an enormous quantity of money on the mountain at the time of his sojourn there, in a place to which no one who wishes to set out without assistance is ever able to ascend. The same old man, however, who gave me so much information about the place, further told me that once, observing that the weather was very fine, he had got up early in the morning, together with a certain Count Clement, and made all haste to climb the mountain. When they got near it, however, the peak began to be hidden by thick clouds, and to grow dark, and the darkness gradually increased until it reached the climbers themselves. They, however, caught in the darkness of the mist, and fumbling about them with their hands, with difficulty made their escape through the gloom; and it seemed, as they said, that stones were being showered down upon them from above, an experience which they also declare to have befallen various other people. In the higher parts nothing is found on one side but wild nard, though on the other side there is said to be a lake of great extent, and a meadow.

"But the same old man used also to tell the story of a certain very avaricious nobleman, who, constantly hearing the peasants tell these stories — the stories, to wit, of treasure being collected on the mountain — and being excited by them, forthwith gave orders to the clergy to be quick, and come with him, and make haste to accomplish the ascent. And they started, carrying a cross and holy water, and singing litanies and *Vexilla Regis;* but before they got to the top they were turned back ignominiously, just like their predecessors.

"Wherefore, since the opportunity of telling this story has presented itself, and since indiscriminate digression is resulting, let us henceforward devote our pen to the narration of more worthy matters."

The closing sentence has the true mediæval tone; though the sentiment conveyed in it finds an echo even in the writings of so recent a philosopher as John Murray, who, in the first edition of his *Handbook to Switzerland,* deprecates the climbing of any mountain but the Rigi. It is not surprising to find that for a long subsequent period, the Roche Melon has no history. Presently, however, it reappears in the narratives of two travellers of French and English nationality respectively. The Frenchman climbed it, whereas the Englishman only criticized it. Let us, therefore, take the Frenchman's story first.

He was the Seigneur de Villamont, *Chevalier de l'Ordre de Hierusalem, gentilhomme ordinaire de la Chambre du Roy.* That is all that we know about him, except that in June, 1588, he started from his native Brittany, travelled for thirty-nine months, and on his return wrote an account of his experiences, which ran through twenty-one editions. On his way to Italy he climbed the Roche Melon. This is his crisp description of the ascent:—

"Arriving at Novalesa—where is the first pass into

Piedmont—I was stopped, as I had much feared that I should be, to undergo quarantine. Seeking a means of escaping from that difficulty, I was advised by the Officer of Health to send to Turin, to his Highness the Duke of Savoy, to get leave to pass; which I did, and obtained his permission. But, while my messenger was on his errand, several of the inhabitants advised me to visit Notre Dame de Roche Melon, a little chapel built on the top of a mountain of the same name. And, though they told me that it was difficult to climb thither, nevertheless, for the pleasure of so rare and novel an experience, I repaired to the said place, taking two guides to conduct and assist me, and making them carry two days' provisions, as they told me that nothing to eat was to be found there, except fresh cheese, and that the mountain was nearly four leagues high. Having begun to climb, and got a league high, we found a few little châlets and meadows where cattle were grazing. Proceeding, we saw a spring issuing from a rock, the water of which was excellent to drink. Then, having with great labour got two leagues high, I found myself so fatigued that, being able to go no further, I had to stop in a cottage where they were making cheese, where, after I had refreshed myself, and eaten and drunk of the things that I had with me, drowsiness gradually came over me, and I and my companions had to lie down and rest on the hard ground, waiting for the dawn in order to continue our journey. The poor people of the cottage welcomed us like honest folk, offering us such food as they had; and as they were not so fortunate as to have any candles, they cut stakes of pine-wood, which, when lighted, gave an illumination like that of a link.

"As soon as day broke, we continued the stiff ascent of the said mountain, which we found more difficult than it had been at first, with the result that I wanted to turn back. Only the lad from the cottage where I had slept, whom I had taken with me, to show me the things he had spoken of on the previous evening, prevented me, telling me that, a quarter of a league further on, he would show me the places where he caught partridges, and that very likely we should find some snared,—as turned out to be the case. There were five of them—two of them quite white, and the rest black and white; but they are not such delicate eating as the red and gray ones. Pheasants are also found on this mountain, and so are large numbers of chamois; the boy had shot two with his arquebus the day before, and offered to sell me their skins very cheaply.

"All this induced me to go on until, having got more than three leagues high, I had to fasten irons to my hands and feet in order to climb, and also for fear of falling down the precipices, which threatened us with a horrible death.

"At this point the support of the guides was very useful to me; without it I should not have cared to take such rash risks. And so, as I gradually approached the mountain-top—and the region of mid-air—suddenly an intolerable cold came over me, so that I changed colour, and feeling quite weak, was obliged to throw myself down and rest a little. Seeing this, the guides, who are accustomed to such exertions, made me drink a little wine to restore my courage, and my resolution to continue. Finally, held up by the said guides, I got within a quarter of a league of the top, where I think I never felt a keener cold, or made a passage so perilous; for then I had to climb as if I were going up a ladder, hanging on by the irons which I had fastened to my hands and feet, and all the time I saw below me abysses so profound and frightful that nothing short of death can be expected by those who slip ever so slightly, or fail to keep a tight grasp of their climbing irons. Certainly the thing is much more perilous than I can say; and my advice to those who are curious, as I was, to get to the top of the mountain is to make the attempt in August only, because in any other month it is impossible.

> "Having, then, reached the top, I went into the chapel to say a prayer, and immediately afterwards came out, and cast my gaze over a great frozen lake which lies towards the Grisons. Then, turning round, I saw the mountain-tops, in the direction of Savoy and Dauphiné, covered with their white caps,—and that though we were in the month of August.
>
> "And, though all these mountains were very high, nevertheless, they seemed small in comparison with the mountain on which I stood. Then, suddenly casting my eyes over the countries of Piedmont and Lombardy, I forgot all the toils that I had undergone, and felt my soul filled with joy incredible. And in this state of joy, desiring to see these countries more closely, I descended from the mountain in order to get my delight the sooner."

So much for the Seigneur de Villamont. His story is the earliest detailed account we have of any really important ascent in the Alps; though, of course, the existence of the chapel on the summit proves clearly that it was not a first ascent. For some account of the origin of that chapel we may turn to the works of the English traveller, who came to Novalesa some thirty years later.

This traveller was no other than Mr. Thomas Coryate, the author of that ingenious book, *Coryate's Crudities Hastily Gobbled Up*. He seems to have been a privileged buffoon at the Court of James I., and having been granted a pension by Prince Henry, he started on a long continental tour in 1608, and wrote out his impressions of the places which he visited. His impressions of Roche Melon are as follows:—

> "I observed an exceeding high mountaine betwixt Lasnebourg and Noualaise, much higher than any that I saw before, called *Roch Melow:* it is said to be the highest mountaine of all the Alpes, saving one of those that part Italy and

Germany. Some told me it was fourteene miles high; it is covered with a very Microcosm of clowdes. Of this mountaine there is no more than a little peece of the top to be seene, which seemeth a farre off to be three or foure little turrets or steeples in the aire. I have heard a prety history concerning this mountain which was this: A certain fellow that had been a notorious robber and a very enormous liver, being touched with some remorse of conscience for his licentious and ungodly life, got him two religious pictures, one Christ, and another of the Virgin *Mary*, which he carried a long time about with him, vowing to spend the remainder of his life in fasting and prayer, for the expiation of his offences to God, upon the highest mountaine of all the Alpes. Whereupon he went up to a certain mountaine that in his opinion was the highest of all the Alpine hils, carrying those two pictures with him, and resolving there to end his life. After he had spent some little time there, two pictures more of Christ and our Lady appeared to him, whereby he gathered (but by what reason induced I know not) that he had not chosen that mountaine which was the highest of all; so that he wandered a great while about till he found a higher which was this, unto the toppe whereof he went with his pictures, where he spent the residue of his life in contemplation, and never came downe more. My author of this tale or figment (for, indeede so I account it and no otherwise) is our Maron[1] of Turin, who horsed our company from Lyons to Turin, and told us this upon the way."

Such is the second chapter in the history of the Roche Melon. Only a third chapter remains; and that cannot be taken from a better source than the latest edition of the handbook of John Murray, who, with plain and business-like precision, states the real facts of the case, and brings the vicissitudes of the mountain up to date. Mr. Murray says:—

---

[1] A guide or conductor

"The Rochemelon, or Monte de Roccia Melone (Arx Romulea), can be ascended from Susa in seven to eight hours. Upon the summit is a chapel, founded 1358, by Bonifacio Rotario d'Asti, who, having been taken prisoner by the Mahometans, made a vow that, if set free, he would erect an oratory here in honour of the Virgin. He placed in the chapel the statue of our Lady (now in the Cathedral Church of Susa), which is carried annually in procession to this chapel on the 5th of August, the festival of Notre Dame de la Neige. The ascent is accomplished without difficulty, and a mule mounts as far as the Casa d'Asti. There is a rude path to the summit. From Susa it is five and a half hours to the *Casa d'Asti* (9,298 feet), whence the top will be reached in two hours. Here there is the wooden chapel (full of *ex votos*), a marble tablet recording the ascent made in 1659 by Charles Emanuel II., and a huge bust of Victor Emanuel II. . . . The summit can also be reached from the side of Savoy, starting from Bessans in the valley of the Arc. The ascent thence takes six or seven hours, and lies in part over glaciers, but is annually made by many pilgrims on August 5th. The view from the Rochemelon is very fine."

From a comparison of the two latter passages it is clear that there are two views concerning the character and antecedents of the saint who established himself upon the mountain. As the whole story depends mainly upon local tradition, it is difficult to decide between them, and it really matters very little which opinion is right. That the legend rests upon some foundation in fact seems, however, tolerably certain; for not only did the Seigneur de Villamont pray in the saint's chapel, as we have seen, but the holy man's statue of the Virgin, as Mr. Murray mentions, is still to be found in the cathedral of St. Justus, at Susa, and bears a Latin inscription, running thus:—

> "*Hic me apportavit Bonifacius Rotarius, civis Astensis, in honorem domini nostri Jesu Xti, et Beatæ Virginis. A dom MCCCLVIII die* 1 *Septr.*"

The reason why it was brought down to Susa is set forth by Bourrit, the Historian of the Alps, of whom it will be necessary to say more presently, in an interesting passage.

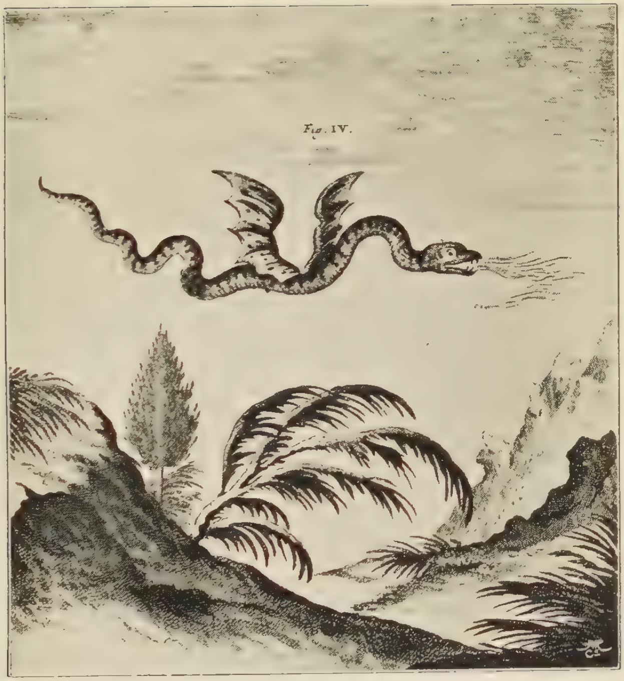
"Formerly," Bourrit writes, "there used to be a pilgrimage thither from Novalesa, but the path was so bad that a year never passed without a fatal accident resulting, either from the fatigue or from the effect of the rarity of the air upon persons whose piety was greater than their strength. They used to be taken ill and tumble over the precipice, which, looked at from the summit of Roche Michel, appeared of a truly terrible profundity. To avoid such misfortunes it was judged to be better to bring the image down, and deposit it at Susa."

CHAPTER II.

An Ascent of Pic Canigou by Peter III. of Arragon—The Dragon that he saw there—The Case for Dragons in the Mountains.

Our first climbers—the pioneers of Roche Melon—were anonymous. The second on the list is King Peter III. of Arragon, who was born in 1236, and died in 1285. He was a great warrior, for he fought the King of France and the Pope of Rome simultaneously, conquered Naples, and was hailed as the liberator of Sicily. He was also a great reformer; for he granted his people the Privilegio General, which is the Spanish equivalent of our English Magna Charta. And, in addition to these exploits, he is said to have incidentally ascended Pic Canigou, in the Pyrenees. The story is told in the chronicle of Fra Salimbene of Parma, of the Order of Lesser Friars.

It is not an ascent which presents any formidable difficulties; we hear of parties making it in connection with trigonometrical surveys as early as 1700. According to Ramond de Carbonnière, the real pioneer of Pyrenean exploration, who published his first book of travels in 1789, "the Canigou and the Pic du Midi de Bigorre are so accessible that even people the least capable of enduring the fatigue of mountain travel ascend and descend them in a single day." According to the more exact and careful Baedeker, "riding is practicable to within one hour of the summit," the remainder of the ascent being "by a toilsome climb over *débris* and through a fissure or *cheminée*, in which natural steps are formed by the schist." In the thirteenth



A WINGED DRAGON IN THE MOUNTAINS.

[*To face p.* 14.

century, however, people looked at the mountains with different eyes, and discovered difficulties where the modern mountaineer finds none. Pic Canigou, though its actual elevation is only 9,135 feet, was then believed to be the highest mountain in the range. To Peter III. of Arragon the ascent of it was evidently a graver matter than a battle; and the enthusiastic chronicler of his exploits seems to share his views. Here is the story, in Fra Salimbene's simple words :—

"That Peter, King of Arragon, was a man of a splendidly stout heart, a valiant knight, and learned in the arts of war. For he was a man of great courage, and did many deeds of daring, as is apparent in the affair of the kingdom of Sicily, which he ventured to invade in opposition to Charles and Pope Martin. Moreover that quality of his is also evident from another case—from the case, to wit, which we subjoin. On the borders of Provence and Spain there rises a very high mountain which the inhabitants of the neighbourhood call Canigosus, and which we may call Caliginosus. This is the first mountain that becomes visible to sailors when they approach the coast from the sea, and it is the last that they can see on their departure. On that mountain no man has ever lived, nor has any son of man ever dared to ascend it, both on account of its excessive height, and by reason of the difficulty and toil of the journey. About the base of the mountain, however, there are inhabitants.

"When Peter of Arragon had decided to make the ascent of that mountain, wishing to make the experiment and ascertain what there was on the top of it, he called two knights, his intimate friends, to whom he was much attached, and explained to them what he proposed to do. They rejoiced, and promised, not only that they would keep his project secret, but also that they would never desert him. Taking provisions, therefore, and the weapons that seemed appropriate, and leaving their horses at the foot of the mountain where there are inhabitants, they began slowly to make the ascent on foot. When they had ascended a considerable distance they began to hear very horrible and terrible thunder claps; in addition to this, flashes of lightning began to appear and storms of hail to fall: All which things so terrified them that they threw themselves upon the ground, and lay there, as it were, lifeless, in their fear and apprehension of the calamities which had overtaken them.

"But Peter, who was stronger and more courageous than the others, and who was anxious to accomplish his heart's desire, proceeded to comfort them, telling them not to give way under their distresses and fears since their labours would redound to their honour and glory. He also gave them food, and ate with them; and after he had refreshed them, and ridiculed the toils of the journey, he again exhorted them to ascend manfully with him; and he did and said this several times.

"At last King Peter's two companions began to flag to such an extent, that, what with their weariness and their dread of the thunder, they could hardly breathe. Then Peter bade them wait for him until the evening of the following day, and then, if he should not return, to descend from the mountain, and depart whithersoever they would. So Peter, with great labour made the ascent alone; and when he was on the top of the mountain he found a lake there; and when he threw a stone into the lake, a horrible dragon of enormous size came out of it, and began to fly about in the air, and to darken the air with its breath. After this, Peter descended to his companions, and reported, unfolded, and narrated to them, everything that he had seen and done; and as they were on their way down from the mountain, he instructed them to tell the whole story to whomsoever they chose.

"It appears to me that this achievement of Peter of Arragon may be compared with the achievements of Alexander, who, in many terrible affairs and undertakings, wished to try his best to deserve the praise of posterity."

Such is the Friar's naive and simple narrative, and it is a narrative of such a character that it can hardly fail to raise the pointed question, How much of it is true? That question, however, is a difficult one to answer; all that is certain being that no scoffer is entitled to ridicule it on account of the dragon story that is mixed up with it. For many centuries after Peter's death, men of enlightenment believed in dragons as firmly as they believed in God; while men of less enlightenment, but equal integrity, swore affidavits before magistrates to the effect that they had encountered dragons in the mountains. The subject is one which it will be necessary to treat more fully in a later chapter. Here it is only important to point out that the fact that a thirteenth century climber claimed to have met a dragon on the top of a mountain, affords no ground for the inference that he lied in saying that he got there. For there is presumably this point of resemblance between dragons and ghosts—that the man who believes in them is always liable to see them, more particularly when he has been frightened by a thunderstorm.

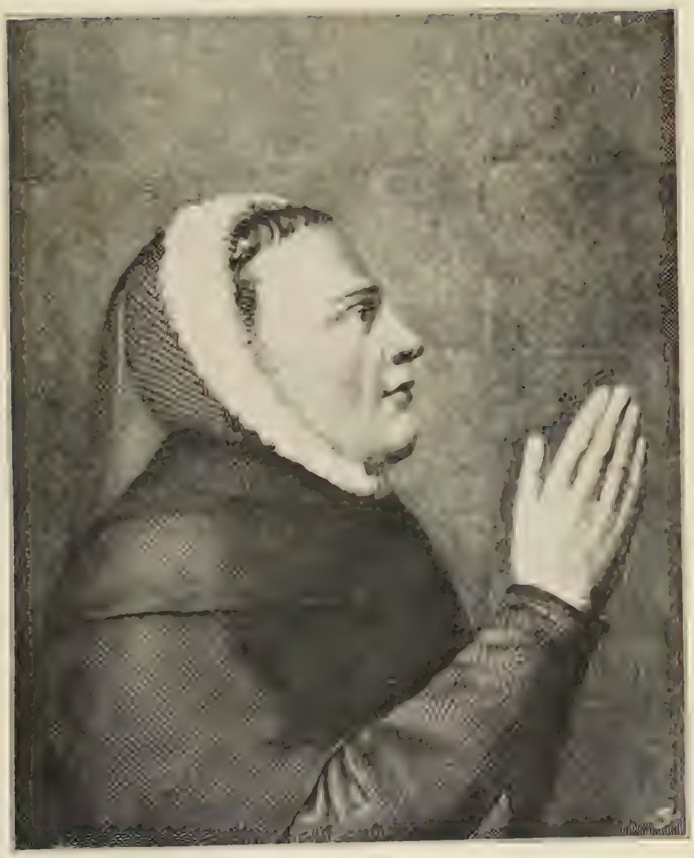
CHAPTER III.

The first of the Sentimental Mountaineers—An Ascent of Mont Ventoux, near Vaucluse, by Petrarch.

In the strictest sense of the word, the poet Petrarch—our third climber—cannot, perhaps, be called a mountaineer at all. He only climbed one mountain once, and that an easy one, of no considerable elevation. But he is the first writer of the middle ages who has neither a vague terror of the mountains nor an idle curiosity about them—the first also who has recorded the deep and grave reflections, which came to him upon the mountain-top. Consequently, though his solitary ascent brought him neither peril nor adventure, a chapter may rightly be devoted to his account of it.

The mountain which Petrarch climbed is Mont Ventoux, in Provence; and he climbed it on the 26th day of April, 1335, at the time when he was living in retirement at Vaucluse. The height is no more than 6,430 feet, and, at present, there is not only an observatory but even an hotel on the summit. Petrarch, however, climbing before roads were made, had a sufficiently toilsome scramble, as he sets forth in the Familiar Epistle in which he describes the day's adventures and records the spiritual reflections to which they gave birth. The letter is addressed to the poet's spiritual adviser, Father Denis di Borgo San Sepulcro, and is thus translated by Mr. Henry Reeve:—

"I have this day ascended the highest mountain in this district, which is very deservedly called Le Ventoux, for the



PETRARCH, THE PIONEER OF MONT VENTOUX.

[*To face p.* 18.

sake of seeing the remarkable altitude of the place. I have cherished this project for many years. You know that from my boyhood, whilst fate has been disposing of the affairs of men, I have been passing my time here. This mountain, which is visible from a great distance, was always before my eyes, but it was long before I could find any one to accompany me, till I opened the matter to my only younger brother, whom you know; and as he was delighted at my proposal, so I was pleased to have a friend and a brother for my companion. On the appointed day we left home, and we got to Malaucène in the evening. This place is at the foot of the mountain towards the north. We stayed there one day, and this morning we started, with some servants, on our ascent, which we did not complete without much difficulty, for the mountain is extremely steep, and an almost inaccessible mass of rock. The poet, however, says rightly, 'Labor omnia vincit improbus.' The day was long, the air balmy, we were supported by the vigour of our minds, and such bodily strength and activity as we possess, so that the nature of the place was the only obstacle. We met with an old shepherd in one of the dells of the mountain, who did all he could to dissuade us from our attempt, telling us that, some fifty years before, he had been invited to go to the summit by the ardour of youth, that he had got nothing by it but discouragement and fatigue, and that his body as well as his cloak were torn by the rocks and brambles; he added that he never heard of any similar enterprise being undertaken either before or since. Whilst he was vociferating all this, our desire to proceed (for thus it is with the incredulous minds of young men) increased with the objections he made. When the old man perceived that all his remarks were vain, he accompanied us a little way amongst the rocks, and pointed out a small path, giving us at the same time a vast deal of good advice, and making repeated signs to us after we were gone. We threw off such of our garments as might have embarrassed us, and began the ascent with great vigour and gaiety. But, as usually happens, fatigue very soon follows great efforts. We soon sat down upon a rock, whence we again started at a more moderate pace, I more especially lessened my mountaineering enthusiasm, and whilst my brother was seeking for short cuts over the steepest parts of the mountain, I more warily kept below, and when he pointed out the path to me, I answered that I hoped to find an easier access, and that I willingly went round in order to advance on more level ground. But whilst I was alleging this excuse for my laziness, the others got far above me, and I was wandering in the gullies of the mountain, where my path was far from being easier, so that the way was lengthened, and my useless labour became more and more irksome. As it was too late to repent of my error, I determined to go straight up, and I at last rejoined my brother, whom I had lost from sight, and who had been quietly resting on a rock, after much toil and anxiety, so that we again started together. The same thing, however, happened again and again in a few hours, and I began to find that human ingenuity was not a match for the nature of things, and that it was impossible to gain heights by moving downwards. Passing, however, with the readiness of thought from corporeal things, I could not help apostrophising myself in the following words: 'The very thing which has happened to thee in the ascent of this mountain, happens to thee and to many of those who seek to arrive at final beatitude, though it is less evident, because the motives of the body are palpable and open, those of the mind are invisible and concealed. The life of the blest is indeed set on a high place, straight is the path which leads to it, many are the hills which intervene, and the pilgrim must advance with great strides from virtue to virtue. Lofty is the end of all things, the termination of life, to which our peregrination tends. We all wish to arrive thither, but as Naso has it—

"Velle parum est, cupias ut re potiaris oportet."

But thou, certainly, unless in this as in many things thou art self-deceived, not only wishest, but deservest. What, then, retains thee? Nothing, indeed, but the apparent ease and advantage of that path which lies through earthly and low pleasures, wherein when thou hast gone astray, thou must either mount straight to the summit under all the weight of thy misspent toil, or thou must lie thee down in the trenched valleys of thy sins to be haunted by the shadows and darkness of death, and to pass an eternal night in perpetual torture.' This reflection seemed to reanimate my sinking vigour, and enabled me to complete my ascent. I only wish that I may accomplish that journey of the soul, for which I daily and nightly sigh, as well as I have done this day's journey of the feet, after having overcome so many difficulties. And I do not know whether that pilgrimage, which is performed by an active and immortal soul, in the twinkling of an eye, without any local motion, be not easier than that which is carried on in a body worn out by the attacks of death and of decay, and laden with the weight of heavy members.

"The highest peak of all is called 'Le petit-fils,' by a sort of antiphrasis, for it seems rather to be the father of all the mountains in the neighbourhood. There is a little plot upon the summit, where we were all very glad to sit down. Since, father, thou hast read of all the perils of our ascent, vouchsafe to listen to the rest, and to the remaining occurrences of this one day of my life. At first, I was so affected by the unaccustomed spirit of the air, and by the free prospect, that I stood as one stupefied. I look back; clouds were beneath my feet. I began to understand Athos and Olympus, since I found that what

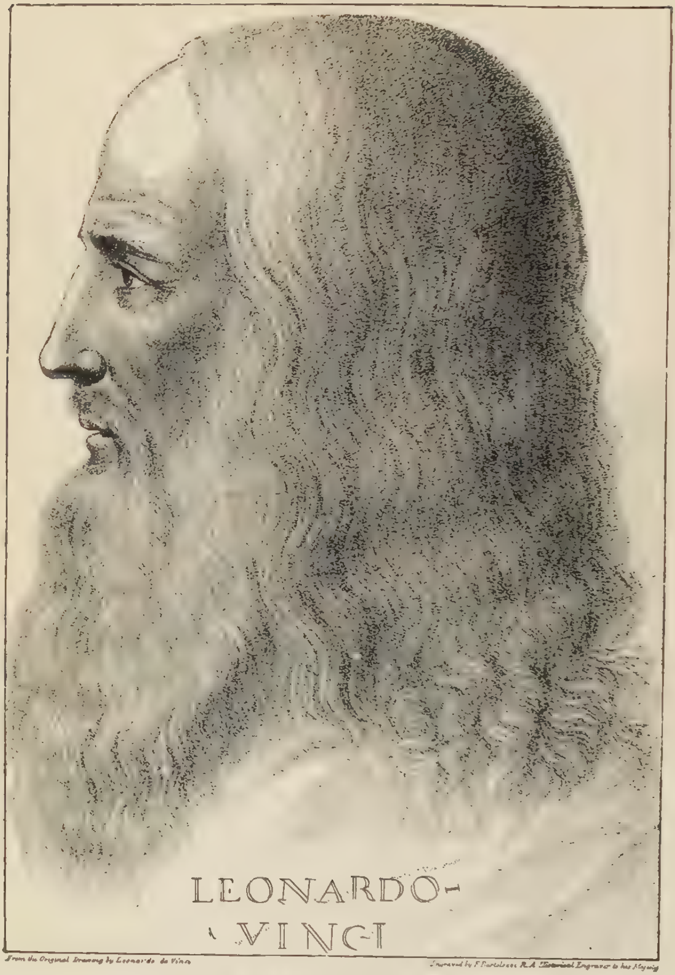
I heard and read of them was true of a mountain of far less celebrity. I turn my eyes to that Italian region to which my soul most inclines, and the great rugged Alps (through which, we are told, that the greatest enemy of Rome made his way with vinegar) seemed quite close to me, though they really were at a great distance. I confess that I sighed for that Italian air, more sensible to the soul than to the eyes, and an intense longing came upon me to behold my friends and my country once more. Then a new reflection arose in my mind, I passed from place to time. I recollected that on this day ten years had elapsed since I terminated my youthful studies in Bologna, and, O immortal God, O immutable Wisdom, how many changes has that interval witnessed! . . . I wished to recollect my past uncleanness, and the carnal corruptions of my soul, not because I love them, but because I love Thee, O my God. . . . Whilst I was rejoicing in my heart, father, at my advancement in years, I wept over my imperfections, I mourned the common mutability of human actions, I forgot the place I was in and the reason of my coming thither, till, deferring my meditations to a fitter opportunity, I looked about to discern that which I came to see. The frontier of France, and the Pyrenees of Spain were not to be descried (though nothing, that I know of, intervened) by reason of the impotence of mortal sight. But I could very clearly see the mountains about Lyons on the right, and on the left the Bay of Marseilles, which is distant some days' journey. The Rhône flowed beneath our eyes. But whilst I was admiring so many individual objects of the earth, and that my soul rose to lofty contemplations, by the example of the body, it occurred to me that I would look into the book of Augustine's 'Confessions,' which I owe to your kindness, and which I generally carry about with me, as it is a volume of small dimensions, though of great sweetness. I open it at a venture, meaning to read whatever might present itself—for what could have presented itself that was not pious and devout? The volume opened at the tenth book. My brother was expecting to hear the words of Augustine from my lips, and he can testify that in the first place I lighted upon, it was thus written: '*There are men who go to admire the high places of mountains, the great waves of the sea, the wide currents of rivers, the circuit of the ocean, and the orbits of the stars—and who neglect themselves.*' I confess that I was amazed; I begged my brother, who was anxious to hear more, not to interrupt me, and I shut the book half angry with myself, that I, who was even now admiring terrestrial things, ought already to have learnt from the philosophers that nothing is truly great except the soul. I was sufficiently satisfied with what I had seen upon the mountain, and I turned my eyes back unto myself, so that from that hour till we came to the bottom, no one heard me speak. The words I had read busied me deeply, for I could scarcely imagine that they had occurred fortuitously, or that they were addressed to any one but myself. Thou mayest imagine how often on that day I looked back to the summit of the mountain, which seemed but a cubit high in comparison with the height of human contemplation, were it not too often merged in the corruptions of the earth. At every step I thought, if it cost so much sweat and toil to bring the body a little nearer to heaven, great indeed must be the cross, the dungeon, and the sting which should terrify the soul as it draws nigh unto God, and crush the turgid height of insolence and the fate of man. Who shall not be drawn aside from this path by the fear of trial or the desire of enjoyment? Happy, oh happy is he, of whom methinks the poet spoke:

> 'Felix qui potuit rerum cognoscere causas,
> Atque metus omnes, et inexorabile fatum
> Subjecit pedibus, strepitumque Acherontis avari!'

How steadily must we labour, to put under our feet, not a speck of elevated earth, but the elate appetites of our terrestrial impulses!

"In these undisguised reflections, I felt not the stones upon the path, and I regained the rustic cottage which I had left before the dawn, at an advanced hour of the night; the constant moon afforded sweet attendance to us as we walked: and now, whilst the servants are busy preparing supper, I have stolen aside to write you these lines on the spur of the moment, lest with change of scene and the variety of impressions the thoughts I have penned should have deserted me. Thou seest, most beloved father, that there is nothing in me which I desire to conceal from your eyes, since I not only disclose to you my own life, but even my individual reflections. Father, I crave your prayers, that whatever in me is vague and unstable may be strengthened, and that the thoughts I waste abroad on many things, may be turned to that one thing, which is true, good, and secure. Farewell."—*Epist. Famil.*, l. iv. ep. 1.

It is a remarkable bit of writing. We have only to set it side by side with Master John de Bremble's letter from the Great Saint Bernard to see how far the sentiment is in advance of the general sentiment of the age. The singular thing is that the climber, whose one mountain ascent enriched him with so many beautiful reflections, should never have repeated the experience. That it was the thought of the fatigues and difficulties that deterred him one does not readily believe. Was it rather the fear that familiarity might vulgarise the effect of the sublimities of nature, and that the beautiful thoughts with which the mountain-top inspired him might lose their force and their intensity if he deliberately courted them a second time? One cannot say for certain, but the reason would at least have been worthy of a poet.


LEONARDO·
VINCI

From the Original Drawing by Leonardo da Vinci

Engraved by F. Bartolozzi R.A. Historical Engraver to his Majesty

LEONARDO DA VINCI.

[*To face p.* 25.

CHAPTER IV.

The Ascent of "Monboso" by Leonardo da Vinci—Where and what is "Monboso?"—The Views of Mr. Douglas Freshfield and of Signor Uzielli.

AFTER the poet-mountaineer, the painter-mountaineer. A good deal has been written—though very little is actually known—concerning the Alpine excursion undertaken by Leonardo da Vinci, towards the end of the fifteenth century. Our only data for engaging in a discussion of the subject are certain fragmentary passages of the painter's literary works, edited from the original manuscripts by Dr. J. P. Richter, and rendered into English by Mrs. R. C. Bell; and the only passage which palpitates with any sort of actuality is the passage which runs as follows:—

"And this may be seen, as I saw it, by anyone going up Monboso, a peak of the Alps which divide France from Italy. The base of this mountain gives birth to the four rivers which flow in four different directions through the whole of Europe. And no mountain has its base at so great a height as this, which lifts itself above almost all the clouds; and snow seldom falls there, but only hail in the summer when the clouds are highest. And this hail lies (unmelted) there, so that if it were not for the absorption of the rising and falling clouds, which does not happen more than twice in an age, an enormous mass of ice would be piled up there by the layers of hail; and in the middle of July I found it very considerable, and I saw the sky above me quite dark, and the sun as it fell on the mountain was far brighter here than in the plains below, because a smaller extent of atmosphere lay between the summit of the mountain and the sun."

The passage suggests various reflections, of which the principal is that, however much Leonardo da Vinci may have frequented the mountains, his experiences of life above the snow-line must have been inconsiderable. Otherwise, he would have fallen in with a snowstorm on a glacier and withdrawn his rash statement about the hail. This point noted, we come to the question: "Where and what is the 'Monboso' which the artist tells us that he ascended?" On this point there has raged a controversy more or less vivacious, the general drift of which is all that it is necessary to set forth here.

Dr. Richter began the discussion by suggesting, with all modesty and diffidence, that "it seems most obvious to refer it to Monte Rosa." Then, in the *Proceedings of the Royal Geographical Society* of June, 1884, Mr. Douglas Freshfield stepped upon the war-path, and mingled rhetoric with criticism. "The Royal Geographical Society and the Alpine Club," he wrote, "may be outside the scope of art critics, but on matters of mountain nomenclature they may, I think, be somewhat of authorities." And he concluded that "Monboso" is none other than Monte Viso, which still figures as "Monveso" on the local sign-boards.

For some years this was the accepted view of those who had any views at all upon the matter. Ultimately, however, Signor Uzielli,[1] of the Italian Alpine Club, brought his great stores of erudition to bear upon the subject, and proved conclusively that Dr. Richter was right in spite of his diffidence, and Mr. Douglas Freshfield wrong in spite

[1] *Leonardo da Vinci e le Alpi.* By Gustavo Uzielli, Turin, 1890.

of his rhetoric. He pointed out that the name "Monbosa" is found in place of Monte Rosa in various maps, as late as 1740, and that one of the spurs of Monte Rosa is called Monte Bo even at the present day, and cited other arguments equally convincing. Consequently, in May, 1892, Mr. Freshfield wrote another article for the *Proceedings of the Royal Geographical Society*, in which he chaunted his palinode, and added the interesting statement that Leonardo "may have got as far as the rocks above the Col d'Ollen, where, at a height of 10,000 feet, the inscription 'A. T. M., 1615,' has been found cut in the crags."

It might be argued, of course, that Monte Rosa does not, as, in the passage quoted, "Monboso" is said to, "divide France from Italy." But this statement goes for little in view of the general geographical ignorance of the times, and of the fact that old Italian maps are in existence in which France is credited with all the country lying between the Alps and the Rhine.

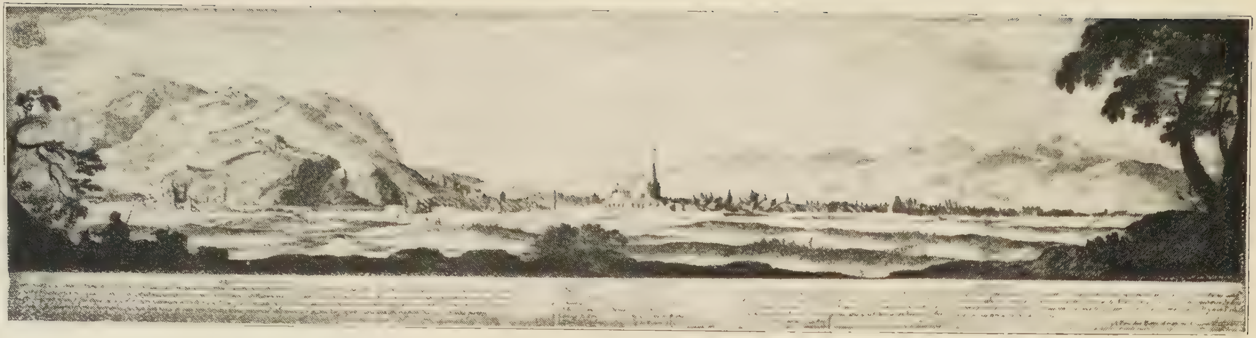
It is, no doubt, unnecessary to add that no critic whatsoever supposes that Leonardo da Vinci got to the top of his "Monboso." The distinction between ascending a mountain and scrambling about on its higher slopes was much too subtle for him, as one imagines that it was for King Peter III. of Arragon, and as it certainly was for a good many of the early mountaineers.

CHAPTER V.

The Ascent of Mont Aiguille by Dompjulian de Beaupré in 1492—The *procés-verbal* of the Expedition preserved in the Archives of Grenoble—A subsequent ascent by a peasant in 1834.

The year which marked the discovery of America by Columbus is also a great date in the history of mountaineering. In a certain sense, indeed, it may be said that that is the date at which the history of mountaineering properly begins. At all events, it is in 1492 that we first find a full, precise, and detailed account of an ascent which is still reckoned difficult, even in an age so critical of mountaineering difficulties as the present.

Mont Aiguille, in Dauphiné, near Grenoble, is the mountain that was then ascended; and the guide-books announce that it is "for experts only." The height of it, it is true, is only about 7,000 feet, but getting to the top is really a matter of scaling precipices. According to Paul Joanne the ascent and descent together take from ten to eleven hours; and that though, since 1878, the steeper places have been draped with iron cables under the direction of the French Alpine Club. One cannot wonder, therefore, that, in the middle ages, the mountain went by the name of Mont Inaccessible. In 1492, however, Charles VIII., King of France—with no loftier motive than the desire to gratify a whim—ordered his Chamberlain, Dompjulian de Beaupré, Captain of Montélimar, to climb this Mont Inaccessible, and Dompjulian obeyed his master, and, taking as much pains to storm the mountain as he would have taken to storm a fortress, conducted a goodly company to the top, and heard mass there, and stayed there for the best part of a week, and then came safely home again.



OLD VIEW OF GRENOBLE.

[*To face p.* 28.

The most interesting part of the story lies, however, in the fact that this remarkable ascent was the subject of a considerable official correspondence, was investigated by a Parliamentary Committee, and was attested by the grave depositions of special commissioners. Dompjulian had no sooner reached the summit of the mountain than, like a true Frenchman, he proceeded to *dresser procés-verbal*, and to send his *procés-verbal*, by special messenger, to the President of the Parliament of Grenoble. The members of the said Parliament, having debated the matter, resolved to send a deputation to inquire into the truth of the statements laid before them. The delegates, in due course, delivered their report, and the resulting documents were preserved in the Grenoble archives, where they may still be seen by the curious. They read so quaintly that it would be a pity not to reproduce them textually. It will be seen that Dompjulian changed the name of the mountain from Mont Inaccessible to Mont Aiguille, and, in order that the new designation might not escape his memory, caused the eminence to be baptized in the name of the Father, the Son, and the Holy Ghost. It will also be remarked that, being a poor scholar, he had no fixed rules as to the spelling of his name.

The documents run thus:—

"DESCRIPTION OF THAT WHICH HAPPENED ON THE MOUNTAIN EGUILLE-FORT, DURING THE SOJOURN UPON IT OF DOMPJULLIEN, CAPTAIN OF MONTELIMAR AND SOU, GIVEN TO ME, ON THE 12TH OF OCTOBER, 1699, BY M. LUCAS, WHO TOOK IT FROM THE CHAMBRE DES COMPTES OF THE PROVINCE OF DAUPHINÉ, AND TRANSLATED IT INTO FRENCH.

"LETTER OF DOMPJULIAN TO THE PRESIDENT OF GRENOBLE.

"Monsieur the President,

"I send you my hearty greetings. When I left the King he charged me to cause an attempt to be made to see whether it was possible to climb the mountain which was said to be inaccessible; which mountain I, by subtle means and engines, have found the means of climbing, thanks be to God; and now I have been here three days; and more than ten companions are with me—both Church men and other respectable people, and also one of the King's laddermen; and I do not mean to leave here until I have received your answer, in order that, if you wish to send a few people to see us here, you may be able to do so; though I warn you that you will find few men who, when they see us up above, and see all the passage that I have caused to be made, will dare to come here; for it is the most horrible and frightful passage that I or any of my company have ever seen. I inform you of this in order that, having made sure of it at your pleasure, you may be so good as to write to the King by my lackey, the bearer of this; and I assure you that you will be causing him great pleasure, and me also, and you may be sure that if I can do anything for you, I will do so according to the pleasure of our master, so that he may give you that which you most desire.

"Written the 28th day of June, on Eguille-Fort, called Mount Inaccessible; for the people of the country call it Lèguille; and in order that I might not forget it, I have had the mountain named in the name of the Father, the Son, and the Holy Ghost, of Saint Charlemagne, for love of the name of the King; and I have had mass said upon it, and have caused three crosses to be set up. To describe the mountain to you—it is about a French league in circumference, a quarter of a league in length, and a cross-bow shot in width, and is covered with a beautiful meadow; and we have found a beautiful herd of chamois, which will never be able to get away, and some little ones of this year with them, one of which was killed, in spite of our intentions when we entered, for, until the King gives other orders I do not wish to have any of them taken. You have to ascend half a league by ladder, and a league by other ways, and it is the most beautiful place that I have ever visited.

"Wholly yours,

"DOMPJULIEN.

"*These letters were presented on the last day but one of June.*"

"In 1492, and on the last day but one of June, the Parliament of Dauphiné, having received the above-mentioned letters, decided to send to the Mount Eguille, which is in Dauphiné, the noble Yve Lévy, Usher of the said Parliament, in order to ascertain whether the contents of the said letters were true: who returned therefrom on the 5th of July of the same year, and reported to the said Parliament that he had been to the place where the said mountain is situated, and that at the foot of that part of it where the cliff begins, he found that ladders had been placed against the rock, whereby one commences to ascend it. And he further reported that he, the said Usher, saw on the said Mount Eguille Dompjulian, Captain of Montélimar, above mentioned, and several other persons who were with him. He was unwilling to expose himself, however, by reason of the danger that there was of perishing there, and by reason of the impossibility of getting there, for fear less he should seem to tempt the Lord, since at the mere sight of this mountain everyone was terrified. He saw there, nevertheless, the said Dompjulian and the others, who begged him to draw near to them, which the Usher did not deign to do. He saw on the said mountain three crosses which had been recently erected, and there were with him several persons, some of whom went upon the said mountain, among others the Noble Guigue de la Tour, Châtelain of Cleles. As for the rest, they were so frightened when they saw this mountain that they would not draw near to it; but he did not fail to see several persons on it, who certified to him as follows:—

"We, the undersigned, certify to the Usher of the Parliament, that to-day, the first day of July, we climbed the mountain which was formerly called Inaccessible, and is now called Eguille-Fort: on which mountain we report that we found Monseigneur Dompjulian, Captain of Montélimar, with his retainers, to the number of seven; and we heard mass on the said mountain and also (saw) three crosses, which the said Captain has caused to be set up.

"GUIGUE DE LA TOUR, Châtelain de Cleles.
"F. DE COLAUS.
"SILVE."

"I, Pierre Liotard, Captain of the place of the Gates, certify that I went on the Mont Eguille, and that I found upon it Dompjulien, Captain of Montélimar, with five or six of his retainers, among whom were two priests, one of the order of the Lesser Friars, and the other a secular priest, who was celebrating mass on the same mountain. Several persons climbed with me, to wit:—the noble George Juvenis, the noble Pierre Blosset, the noble Gaspard Robert, the noble Gonnet-Bencot, Reymond du Collet, chaplain, J. Tobert, Pierre Espeil, of the place of Roisar, Claude Chevalier, of the place of the Gates.

"Thus do I certify,
"PIERRE LIOTARD."

"In the year 1492, and on the 26th of June, in the name and by the orders of Charles VIII., King of Dauphiné, Sieur Ant'hoine de Ville, Lord of Dompjullien and Beaupré, and Captain of Montélimar and Saou, chamberlain and counsellor of the King, went upon the mountain commonly called Eguille, or Mont Inaccessible, situated in the territory of Dauphiné, together with several of his retainers. To wit:—Sebastien de Carect, Professor of Theology and Preacher to the King; the noble Reynaud

Jubié, ladder-man to the King; Master Cathelin Servet, Master Catin, clerk of the Collegiate Church of Sainte Croix of Montélimard; Master Pierre Arnaud, carpenter of the said Montélimard; Guillaume Sauvage, lackey of Dompjulien; John Lobié, who lives at Die, and myself, François de Bosco, almoner of the said Lord, who said the mass on the following day, to the honour of God, of the Holy Virgin, and of the whole celestial and blessed choir; which persons aforementioned ate, drank, and slept on the said mountain, which, when he reached it, the said Lord Dompjulien caused to be baptised,—giving it the name of Eguille Fort, though it was formerly called Eguille, or inaccessible mountain—by Master Sebastien de Caret, preacher to the King, of whom mention has been made before, saying: '*In the name of the Father, of the Son, and of the Holy Ghost, Amen,*' and in honour of Saint Charlemagne, whose name our King bears; singing the while the *Te Deum*, the *Salve Regina*, and several other prayers, the said François de Bosco and several others saying the responses.

"This mountain is covered with a beautiful meadow which it would take forty men or more to mow; there is also a very beautiful herd of chamois which will never be able to get away, and there are several wild sparrows of three varieties of colour, red, black, and grey; and crows with red feet, and several other birds which we are not acquainted with. One also finds there a great quantity of flowers of various colours and various fragrant scents, and, more particularly, lilies. The meadow is a league in circumference by French measure, a quarter of a league in length, and a bow shot, or cross-bow shot, in width. One has to climb for half a league by means of ladders, and for a league by a path which is terrible to look at, and is still more terrible to descend than to ascend.

"Finally, on the first of July of the same year, the noble Barrachin Silvon, of the neighbourhood of the said mountain, with Claude, his son, and François, his brother, curé of Saint Martin, brought upon the said mountain to the said Lord some tame rabbits, black, and white, and grey, which all immediately began to feed. In two days the said Lord Dompjulien had a house built upon the said mountain, and also planted on the three highest points of Eguille Fort three crosses in honour of the Holy Trinity, which can be seen from all the neighbouring districts.

"And we, François de Bosco, almoner of the said Lord Dompjulien, and Master Catin, incumbent of the Collegiate Church of Sainte Croix de Montélimard, in the diocese of Valence, certify that we were present when the things above-mentioned took place—that we saw and heard them—that we ate, drank, and slept on the said mountain, as has been said before. That is why I have drawn up a written account of all these things, for the recollection of posterity, in the presence of the above-named, and have subscribed myself, with my own hand, the same day and year,

"FRANÇOIS DE BOSCO, No^{re} Apostolique."

Such are the circumstantial narratives. That none of them are coloured by the natural desire of the traveller to tell his friends things that will astonish them is more, perhaps, than one would be justified in saying. The flora and fauna of the mountain-top, at any rate, seem to have been either hastily observed or carelessly reported by the ecclesiastic, François de Bosco. On the whole, however, the stories bear the stamp of truth, and are singularly free from the kind of exaggerations that might have been looked for. The large number of the witnesses, no doubt, served as a salutary check upon the imaginative faculties of the chroniclers.

It remains to follow the history of the mountain a little further. There was no second ascent of it until 1834. In that year, however, it was climbed by a peasant of the neighbourhood, named Jean Liotard, who managed to get up without the help of ladders. He, also, described his adventures in a *procés-verbal*, his signature being attested by the vicar and notary of his parish. Though a climber of the year 1834 is hardly to be numbered among the early mountaineers, his narrative may as well be printed here, in case anyone wishes to compare it with the narrative of his illustrious predecessor. This is what Jean Liotard says:—

"PROCÉS-VERBAL OF THE ASCENT OF MONT AIGUILLE, EXECUTED IN 1834.

"The undersigned: Joseph Thiollier, curé of the parish of Chichiliane; Eugène de Rochas, advocate, native of Gap (Hautes Alpes); Jean Liotard, aged twenty-six years, inhabitant of the village of Trezanne; Antoine Liotard, his brother, inhabitant of the same place; Jean Antoine Cotte, landed proprietor and miller, of La Bàtie, in the commune of Gresse, certify, upon their soul and conscience, that, on the 16th of June, 1834, they repaired, at ten o'clock in the morning, to the foot of Mont Aiguille, called inaccessible, situated between the communes Chichiliane, de Trezanne, and Les Portes, in the canton of Clelles, in the department of the Isère, taking with them ropes, ladders, and a mason's hammer, for the purpose of forcing a way over the rocks, and so arriving at the summit of the said mountain; that after having made an unsuccessful attempt in the principal ravine on the western side, they directed themselves to another point on the north of the said mountain. There the undersigned, at their ease, and without the help of any of the instruments aforementioned, scaled the rock to a height which may be estimated at a quarter of the total elevation; the nailed shoes making the ascent perilous, Jean Liotard alone, with remarkable strength and hardiness, took off his shoes and scrambled across the rocks in a slanting direction and on the south face, now descending, now ascending and following a track which only his presence of mind discovered for him. Some time after having been lost from sight, he reappeared at the top of the rocks, and not far from the summit of Mont Aiguille. It was then that his voice was heard, and carried joy to the hearts of the others, when they saw him on the point of attaining the top of a mountain which had been inaccessible since the year 1492, when, in the reign of Charles VIII., it was scaled by the orders of that monarch, as we read in the account written at the period, and still to be seen in the archives of the Chambre des Comptes at Grenoble.

"Soon, in fact, the summit was scaled, and Liotard overran, in every sense of the word, the platform, at the edge of which he appeared to be suspended, now making his thundering voice heard far away, now, that he might be the better seen, hurling down, with a horrible noise, great blocks of stone from the top of the mountain. Consequently he was observed by a crowd of people of the neighbouring communes, who, struck with amazement, shouted back in answer to the shouts of Jean Liotard.

"According to his story the top is covered with grass six inches high, interspersed with fragrant flowers of a shape and colour unknown to the inhabitants of this country. There might be enough meadow land for thirty men to mow, and the circumference might be three-quarters of a league, while the perpendicular height of the cliff can be estimated at no more than half a league. The grass which Liotard gathered on the top of the mountain is very green and rich; the surface which it covers is cracked here and there, and scattered with stones, more or less large. On the highest point, and on the side of the village of Trezanne, he had observed some *débris* very much resembling the remains of a stone wall, but nowhere any trace of animals, either living or dead, except crows, which circled round the rocks in flocks. It is an error, according to him, to believe that there is a spring in the middle of the grass; he also declared that, two hundred paces before reaching the platform, he observed a natural vault, on the inner surface of which he recognised the mark of a hammer, as if there had been some intention of polishing it, or at least of chipping off some of the stone. At the back of the vault there was some rubbish—the remains, perhaps, of some building belonging to very distant times.

"In Liotard's own language, he made the sign of the cross when he set his foot on the summit of Mont Aiguille, convinced that it would not be easy for him to descend from it without the help of God. Then, full of confidence in Him on whose name he had called, he descends by the same route by which he ascended, now hanging on the face of precipices, now going off in a wrong direction, and presently recovering his original track, which he had marked by means of stones laid one upon another. In this fashion, tortured by the most painful anxiety, we saw him for an hour and a half descend the mountain with an astonishing *sang froid* and an agility equal to that of the chamois. At last he appeared to us, out of danger, but without his waistcoat, which he had lost among the rocks by trying to use it to help him to grip hold of the sharp edges of the stones. We ran with joy to meet him, to embrace him, and to show him our satisfaction and our amazement.

"Thus ended, at seven o'clock in the evening, this memorable ascent, which was hindered and made more difficult by a rain mingled with hail, and blown about by a wind of great violence.

"Done and drawn up at the Chateau de Ruthière, on the evening of the same day, the sixteenth of June, 1834.

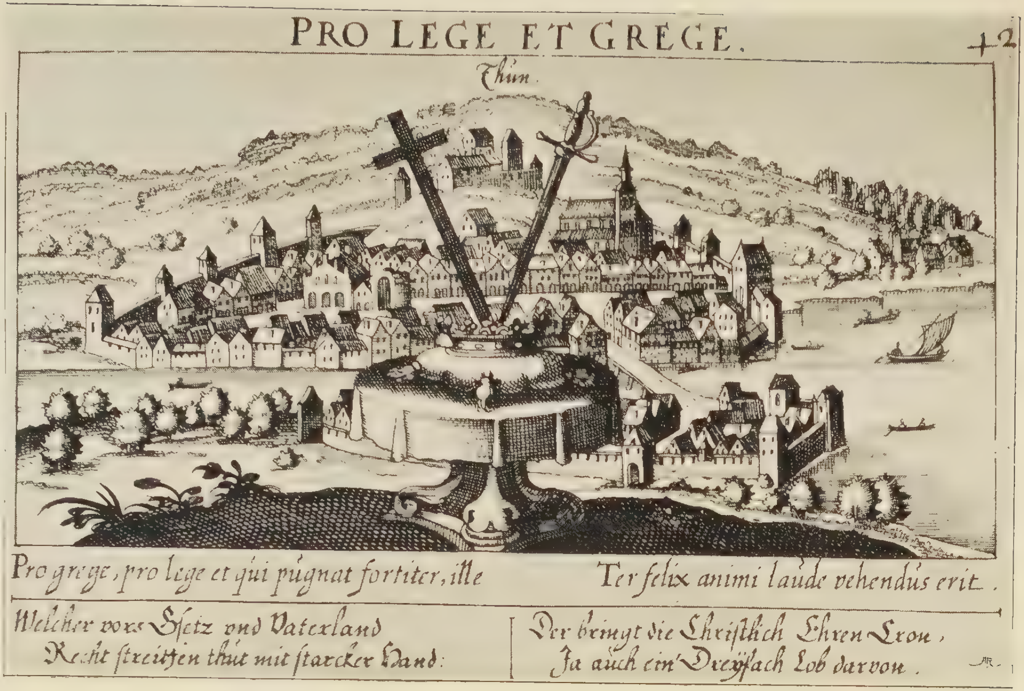
"E. de Rochas. Thiollier, Recteur."

CHAPTER VI.

Early Ascents by Swiss Scholars—An Ascent of the Stockhorn by a Berne Professor—His Latin Verses on the Subject.

At what precise date the Swiss began to climb their minor mountains for their pleasure we have no certain means of determining. It would appear, however, to have been at about the period of the Reformation. It is known that there were ascents of Pilatus as early as 1518; and there is reason to believe that the excursion was not even then regarded as a novelty. Further mention of these, however, may be postponed until we come to speak of the famous ascent by Conrad Gesner, in 1555; and in the meantime a word must be said of the ascent of the Stockhorn, near Thun, by a certain Johann Müller, in 1536.

Of this Johann Müller, very little is known except that he was a Professor—*Professor Bonarum Literarum*—at the University of Berne. His excursion to the mountain—the height of which is given by Baedeker as 7,195 feet—was of the nature of a picnic rather than of an exploring expedition. The interesting thing is that the Professor wrote an account of his scrambles—if scrambles be the word—in a set of hexameter verses, which are entertaining to read in spite of the fact that *qua* hexameters they fall below the best professorial standards. The poem, which bears the proud title of "The Stockhorniad," was published at Zurich, "apud Gesneros," and is dedicated to the pious and learned Dr. Peter Cunzen, clergyman of Berne. The dedication is of a very jovial description, and throws quite


PRO LEGE ET GREGE.
42
Thun.
Pro grege, pro lege et qui pugnat fortiter, ille
Ter felix animi laude vehendus erit.
Welcher vors Gſetz und Vaterland
Recht ſtreitten thut mit ſtarcker Hand:
Der bringt die Chriſtlich Ehren Cron,
Ja auch ein Dreyfach Lob darvon.

OLD VIEW OF THUN.

[*To face p.* 38.

a flood of light upon the character and habits of its author. He apologises for not having finished his composition sooner, but explains that he was prevented by the heat. The heat, he assures the pious and learned doctor, was the cause of thirst, and with this preface, he proceeds to a confession, which is better left in the decent obscurity of a dead language. For he says:

"*Ex siti potus intemperantia; ex ea mille pestes, dysenteria ac reliquæ lues.*"

It certainly is a melancholy admission for a mountaineer to have to make; but there is plenty of internal evidence in the hexameters themselves tending to show that there was, in this instance, good reason why it had to be made. For the poem ignores such matters as the sublimities of nature, and is mainly occupied with the refreshments of which the party partook from time to time. They had four meals on the way up, and three meals on the way down,—a grand total of seven meals in about sixteen hours—so that, on the whole, it is not surprising that their digestions suffered on their return.

But it is time that Professor Johann Müller's verses were allowed to speak for themselves. The actual Latin text is printed in an Appendix. Here, the rash experiment is made of rendering them into English heroic metre:—

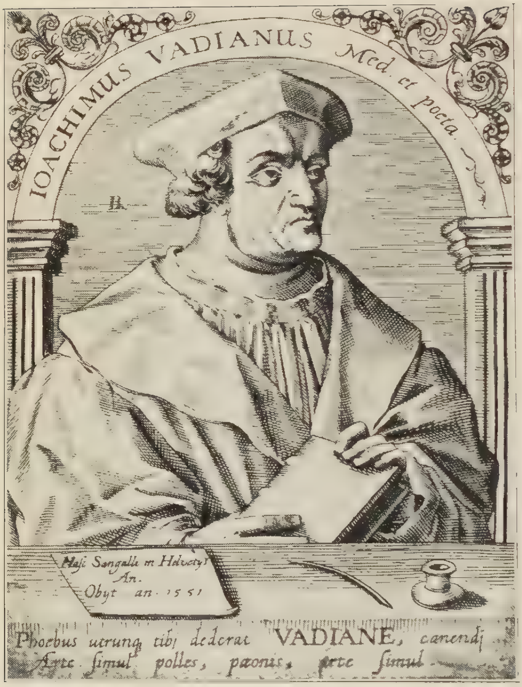
"*The Stockhorniad.*

"'Twas night. The stars were shining in the skies;
The cock proclaimed that Lucifer would rise.
So wakeful Simon calls each sleepy head,
And, straight, each sleeper rises from his bed.
We rise and breakfast, grip our alpenstocks,
To make our foothold sure upon the rocks,
And help us up the peak. Then, on the hill,
A fresh man joins us, and another still,
And one of these, though bred on the hillside,
With only Nature's teaching for his guide,
Has learnt the courses of the stars: He knows

Where mighty Jupiter's bright orbit goes,
Bringing good health to men, and which is Mars,
Awful and red, the bloodiest of stars.
All the sun's satellites he knows, and here
Points Mercury and Venus out, and there
Orion with his sword, the rain who'll bring,
Aye and the Pleiades that rise in Spring.
    Reaching a *châlet*, how could we but deem
'Twere good to rest beside its tiny stream,
And empty from our knapsacks bread and meat,—
Goat's flesh—and wine to wash down what we eat?
Recruited thus by what was in our bags,
We once more scramble up the lofty crags.
The mountain's crest sticks from it like a horn.
Beside it lies a lake. No fish are borne
Upon its waters. In a vale it lies,
From which it issues Arethusa-wise,
Emerging from its subterranean track,
With foaming waves, not far from Erlenbach.
Here it wells forth, a cool and limpid rill,
In a far valley, from a tiny hill,
And not at all unlike Bandusia's brook,
Both in its coolness and its glassy look.
Here, too, we lay our table on the ground,
And lie, with wearied limbs outstretched, around,
Refresh ourselves with game and bread and cheese,
While Stockhorn's streams our raging thirst appease.
A lackey hands the goblets from the rill:
We also quaff Rhone Valley wines until,
Stockhorn, our feet are on thy highest hill.
    Hunger thus vanquished, appetite subdued,
We start again; and it is Cunzen's mood
To draw attention to the various plants:
What healing power the helleborus grants,
And what the gentian looks like, and the rest
Of flowers the high Alps foster on their breast.
One of them, black in colour or subfusc,
Exhales more fragrant odour than the musk;
Just like the double palm's its roots are spliced,
Wherefore men know it as the Hand of Christ.
    Thus to deceive the tedious hours we tried,
And then went up a ridge scarce three feet wide,
Thence over fields and pasture lands until,

Through rocks, and towering crags, we've climbed the hill,
And reach the Stockhorn's top. Whence, looking down,
Eastward we see lakes, marshes, and a town,
The torrents of the Simmenthal,--to West
Mountains like billows on the sea's broad breast.
Our eyes are sated; tis our stomach's turn.
Making a rock our table, we adjourn
To chamois' shoulder, wine, and bread and cheese.
Our rude forefathers lived on meats like these,—
The elder Swiss, who craved nor foreign spice,
Nor foreign wars, but peace at any price.
While thus we lunch, a cowherd comes and makes
A little offering of milk and cakes.
Pleasant, indeed, we find this second meal;
Like Attic *gourmets* at dessert we feel;
For A. is eating sausages, while B.
Drinks milk: cream cheese is good enough for C.
Hunger once more disposed of, thirst appeased,
We left the table, and were vastly pleased
To hurl stones down the cliff and hear the sound,
Like thunder, as from rock to rock they bound,
And only brought our pastime to an end
Because we felt desirous to descend.
Then, on our way, a strange thing met our view:
Right past us all a ptarmigan there flew—
Bird of the rocks they call it in these lands,
Because it loves the rocks and eats the sands—
A first, a second time we aim at it
In vain. Untroubled still we see it sit,
Until, at last, struck by a pebble stone,
Down from the lofty rock it tumbles prone,
And there, with many coloured plumage, lies,
And upturned beak, conspicuous to our eyes.
Thence to a barn that happened to be near,
Where we, again, are sated with good cheer,—
Milk that for Cunzen's little boy we take;
Then up the hill our way once more we make
To coigns of 'vantage on the mountain's crown,
Wherefrom to watch the chamois tripping down.
But, as no beast of any kind was there,
We cursed our luck, for we had taken care
To send ahead of us a skilful hand
To startle from their lairs the skulking band.

So, when we found no beasts for all our pain,
Then we decided to go down again.
Down a long and narrow ridge we went;
Yet more convenient than the ascent
Was the return,—more safe, more smoothly laid:
Butter and dairy produce here are made.
Again we reach the Erlinbachian mead,
And forthwith seek the shelter that we need,
And give our weary limbs a little rest,
When lo! A banquet of the very best
Is spread, and we're invited to partake,
Though only one of us is wide awake,—
To wit Pelorus,—all the rest were 'done'
By their exertions and the blazing sun.
'Twas nothing. Only we were grieved because
It forced a breach of hospitable laws,
And thanks could not be rendered to the toasts
Of welcome showered upon us by our hosts.
Young men and old, all toasted us the same;
One filled our goblets in the nation's name,
An aged gentleman of fluent speech,
Like Hector, and—so wide his broad lands reach—
As rich as Crœsus,—called Lenberrius—
A man of mark, and very vigorous.
And Lupus welcomes this man; that man's light
A third host takes from him. His smile is bright,
He welcomes all, the master of the feast.
Wherebye we see old customs have not ceased,
But the Swiss manners of old time survive,—
The Simmenthal is keeping them alive
By kindness to the stranger. Supper done,
We rose and said good-bye to everyone,
Vowed that, so long as life stayed with us yet,
Their hospitality we'd ne'er forget.
Then once more started on the homeward track
And sometime the next day to Berne got back."


IOACHIMUS VADIANUS Med. et poeta.
Nati Sangalli in Helvetijs
An.
Obijt an. 1551
Phoebus utrunq tibi dederat VADIANE, canendi
Arte ſimul polles, pæonis, arte ſimul.

THE PIONEER OF PILATUS.

[*To face p.* 43.

CHAPTER VII.

The Early History of Pilatus—The Pilate Legend—An Attempted Ascent by Clergymen in 1307—The Two Ascents of 1518—The Ascent by Conrad Gesner in 1555—The Truth of the Legend tested by Experiment in 1585.

THE first part of the early history of Pilatus consists of the growth of the Pilate legend; the second part consists of the gradual discrediting of that legend as the result of inquiries pursued on the summit of the mountain by successive generations of Swiss scholars. How old the superstition is it is impossible to say with certainty. A very complete version of it, however, is quoted by Conrad Gesner, in his famous *Descriptio Montis Fracti Juxta Lucernam* (of which it will be necessary to say more presently), from the works of the thirteenth-century writer, Jacobus de Voragine; and the citation may serve as the most convenient introduction of the subject.

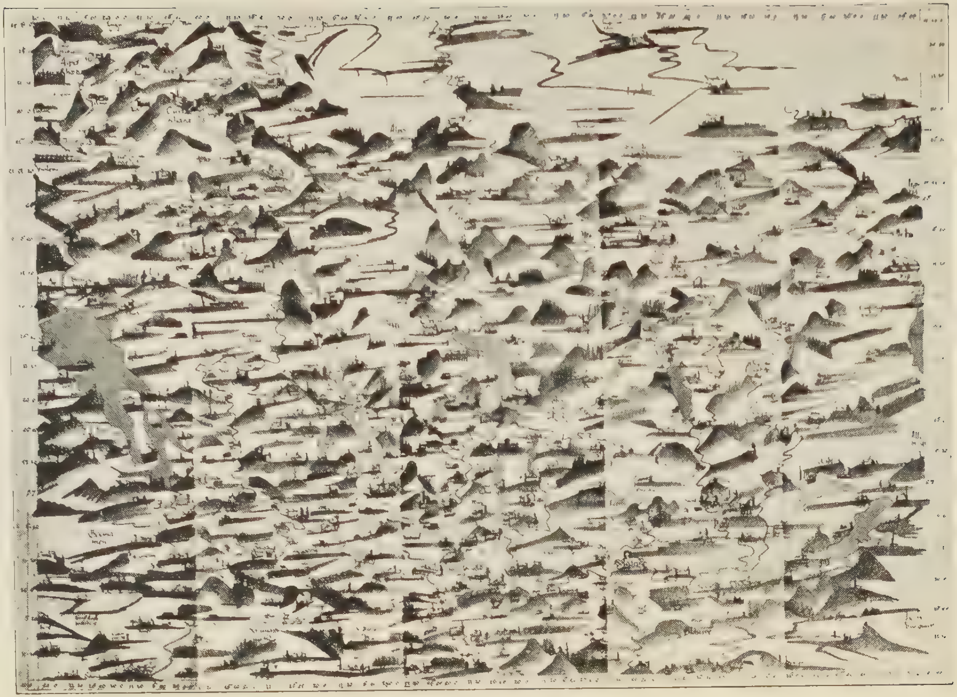
Gesner writes:—

"Jacobus de Voragine, Bishop of Genoa, a member of the Order of Preaching Friars, and the author, about A.D. 1290, of a History of Lombardy, dealing with the lives of the Saints, under the heading of 'The Passion of Christ,' quotes from a certain uncanonical book the following passage about Pilate:—

"'Tiberius Cæsar, being wroth with Pilate because Jesus had been condemned and crucified by him, ordered him to be brought to Rome and locked him up in prison while he decided what to do with him. The sentence was that Pilate should be put to death in the most shameful manner. Hearing this, Pilate killed himself with his own knife. But when Cæsar was told of Pilate's death, he said: "In very truth the man whose own hand would not spare him has died the most shameful of deaths." So his body was attached to a large stone and cast into the River Tiber. But evil and sordid spirits, rejoicing together over the evil and sordid body, and hurrying it along, now through the water and now through the air, stirred great storms in the waters and caused terrible lightnings and tempests and thunderstorms and hailstorms in the air; with the result that all men were held in the thrall of a dreadful panic. The Romans, therefore, took the body out of the Tiber, conveyed it to Vienne, to show their contempt for the place, and dropped it into the River Rhône. But there, too, the evil spirits were present, carrying out the same operations as before. Consequently the inhabitants, unable to endure this molestation of the Devils, got rid of the vial from which curses overflowed upon them, and sent the body to be buried in the territory of Lausanne. But the people of Lausanne, finding themselves distressed by the troubles which they had been told would overtake them, moved it on again, and dropped it into a well surrounded by mountains, where, according to some accounts, certain diabolic machinations and ebullitions are still seen.'

"So writes the Bishop; and there is no doubt that he refers to our Mount Pilatus, which, although, on the side where the marsh is, it does not belong to the Diocese of Lausanne, is quite close to it, and trends southward in the direction of the ancient boundaries of that See."

The early belief was, therefore, that the body of Pilate lay in the little marshy lake near the summit of Pilatus; that, if any one threw a stone into the lake, Pilate would



THE FIRST MAP OF SWITZERLAND.

[*To face p.* 44.

avenge himself by stirring up a tempest; that Pilate was permitted to escape from his confinement once a year, and to sit on a rock clothed in scarlet; and that any one who was unfortunate enough to see him on these occasions was doomed to die within the twelvemonth.

Of these articles of faith the last two did not, indeed, at any time command universal credence. Cappeleer, the historian of Pilatus, speaks scornfully of the alleged apparition as "a spectre which no one can assert that he has ever seen." On the other hand, the presence of Pilate in the lake, and his habit, under provocation, of indulging in "diabolical machinations and ebullitions" were firmly accepted, throughout the whole of the middle ages, by all but the most robust intelligences; and the God-fearing citizens of Lucerne were so timorous of his powers for evil that they made a law forbidding access to the lake to any person who was not accompanied by a burgher of proved probity to guarantee his good faith, and see that he indulged in no unseemly demonstrations perturbing to Pilate's equanimity. There are stories, not so well attested as they might be, that profane adventurers suffered capital punishment for violation of this law; and Cappeleer quotes a sentence of a Lucerne Law Court, from the barbarous Latin of which it appears that, in the year 1307, six clergymen suffered a period of imprisonment for having dared to attempt the ascent in contravention of it.[1]

---

[1] Mandatis itaque provisum erat ut a Stygi hujus sacræ Paludis accessu quivis profanus et temerarius arceretur: juramento constringebantur, qui proxima pascua æstate incolebant Pecuarii, ne quemquam ad Paludem admitterent, viam ve monstrarent; mittebatur iis propterea a Magistratu nostræ Civitatis Veris adventu Apparitor qui illud exigeret, cujus constitutam mercedem dietim florenum rhenanum fuisse in Archiviis legimus: mercedem satis grandem pro temporum illorum pæcuniæ pænuria. Edictum quoque erat, ne ex Urbe quisquam illuc sine prævia licentia, quæ haud facile obtinebatur, ascenderet. Non equidem constat quemquam, qui jussa transgressus

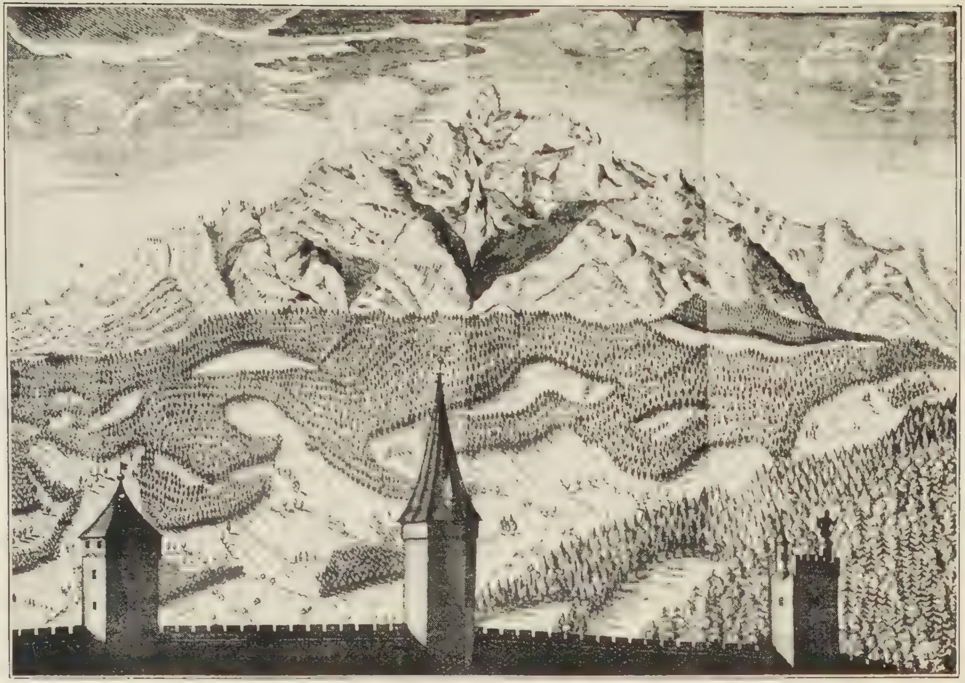
That the mountain had been climbed before 1307, and continued to be climbed, at rare intervals, during the two following centuries is fairly probable; but the actual ascents of which we possess positive information do not begin until 1518. In that year Pilatus seems to have been ascended twice, by the exiled Duke Ulrich of Wurtemburg and by a company of Swiss scholars—Vadianus (Joachim von Watt), of St. Gallen; Xylotectus (Zimmermann) of Lucerne, Myconius (Genshaüssler) of Lucerne, and Grebel of Zurich. Of Duke Ulrich's account we only know that it was attested by tradition, and that Cappeller believed that he had identified his initials,[1] carved, among others, on a rock near the top. Of the ascent of the four scholars we have a brief account written by Vadianus, who was the most famous of them. It originally appeared, of all places in the world, in a commentary on the *De Orbis Situ* of Pomponius Mela; but it is reprinted, at length, in Gesner's tract.

This Vadianus, who lived from 1484 to 1551, after travelling in Germany, Poland, Hungary, and Italy, and holding a professorial chair at the Vienna University, took

---

erat capite mulctatum, uti Stumfius et post eum alii scripsere: illud tamen certum est serio cum iis aliquando actum fuisse. Testis sequens juridicus Actus: A° 1307 "die Dominico post Laurentii, hora nona in stupa Consulum hic Subnominati Clerici, Joannes Machofrid de Gengenbach, Joannes Brunollwer de Uberlingen, Nicolaus Bruder de Thurego, Ulricus Gurtler de Lentzburgo, Rudolphus Nitwe et Joannes Rathsinger, ambo de Lucerna: juraverunt Urvediam super captivitate qua fuerunt detenti, pro eo quod ascendere volebant Cacumen Fracti Montis, et ad Lacum Pilati. Et nihilominus Cives non impetere, cum alienis judiciis per motum proprium, ut donativum: presentibus Joanne et Petro de Moos, Nicolao de Eich, Rudolpho de Root, Hartmanno de Stanz, Rudolpho de Gattwil, Arnoldo de Emmen, Joanne de Gestillon, Nicolao Muri, omnibus Ordinis Consularis, et Friderico Schulmeister Secretario.

[1] The letters were "H. W. 1518." Cappeller says,—"Quam ultimam suspicamur Ducis Hudalrici Wirtembergensis quem hoc anno 1518, Montem conscendisse, cum apud nos in asylo, degeret, constat."



VIEW OF NORTHERN FACE OF PILATUS.

To face p. 46.

a degree in medicine in 1517, and practised, for many years, in his native place, St. Gallen, where, in 1526, he was elected to the office of burgomaster, and made a name, not only as a scholar, but also as a reformer and politician. The story of his expedition to Pilatus is told for the purpose of confirming certain statements of the ancients concerning a surprising natural phenomenon which they had observed; and it shows its author in the light of a true believer in the essentials of the Pilate legend, and more particularly of that part of it which relates to the wilful stirring up of tempests by the outraged evil spirit. This story, Vadianus declares,

> "May well be believed, because the townspeople relate that certain persons who dared to disturb its (the lake's) tranquillity, shortly afterwards suffered capital punishment on account of the disaster which overtook the inhabitants."

Then, striking the personal note, he rambles on:—

> "I myself went to Lucerne, last year, in the month of August, to see the lake, and was most courteously received, and was, on the following day, guided up the mountain by John Xylotectus, a learned and well-bred ecclesiastic of Lucerne; our companions being the erudite and open-hearted Oswald Myconius, and Conrad Grebellius, of Zurich, the brother of my Grebellia, a young man of remarkably fine character. We left the town at daybreak, and rode to a point halfway up the mountain, by a rough and difficult track. Then, being unable to ride further, we turned our horses loose on the nearest pastures, hired a shepherd to guide us, and, supporting ourselves with our alpenstocks, made the rest of the ascent on foot by a very narrow path—too narrow for most people—and scrambled over rocks and broken ground. At last, not without perspiration, we reached the edge of the marsh. The mountain itself, though elsewhere very steep, affords grazing ground just

there, and taking the shape of an enormous globe, sinks away into a deep valley. In the midst of the valley there is a lake, overgrown with fragile reeds, and with brushwood standing on its shores. Moreover—a fact sufficient by itself to give the beholder a sense of its solemn character—a deep silence reigns all round about it.

"No stream flows into the lake, and no stream flows out of it. The water is black like the water of Phlegethon, and lies even more still and motionless than the water of a marsh, and the winds do not find it easy to disturb its calm. From the south and west wind it is protected by the ridges of the rest of the mountain, which rise to a great height. The fact that it lies in a hollow, and the wood of which I have spoken, shelter it on the east and north. But it is singular to observe that it is neither swollen by the snows of winter nor diminished by the droughts of summer, but that the motionless water continually keeps itself within its own proper boundaries.

"I should mention that the shepherd who acted as our guide practically made us bind ourselves by an oath that we would make no unseasonable experiments when we saw the lake, and would not throw anything into it. His life, he said, was in peril if we did, and he exhorted us again and again to caution and even to silence, just as though he were leading us on to holy ground. Wherebye, as I confess, I was not a little perturbed, even to the point of paying a certain respect to the ancient reputation of the place, though, of course, there is not a word of truth in the story, which some have imagined concerning Pilate,—that he is to be seen once a year (on the Wednesday next before Easter), apparelled in the garments of a judge; while the statement that those who have seen him cannot survive the year is the most arrant nonsense. For such is the frivolity of mortals that, whenever a place is made notable by some natural divinity, they also give it the prestige that attaches to fables; and, in the meantime, in order that the listeners may have no difficulty in believing the legends that are tacked on to the truths of nature, superstitious influences lure them on, and their desire for novelty adds to their credulity.

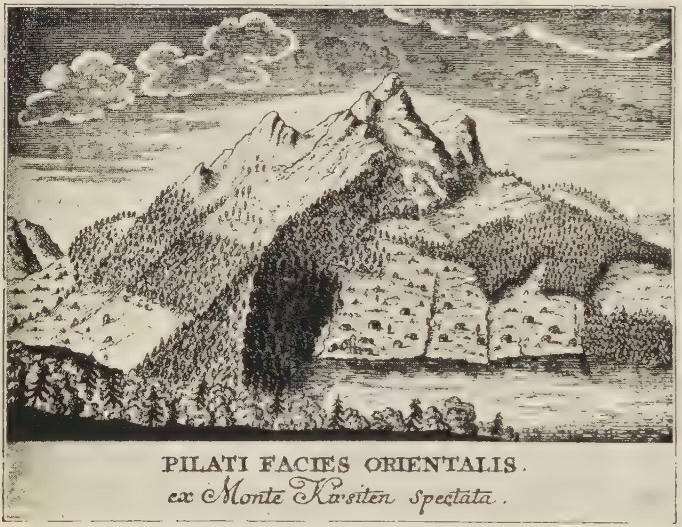
"Still I cannot at present say whether things are or are not as the common talk of the inhabitants avers; for I was not allowed to make experiments, and even if I had been allowed, I could not have done so without great danger. None the less, however, I am moved to accept the greater number of their stories in view of the marvels of nature which are established by the experience and authority of many observers, and have received confirmation in almost every quarter of the globe. Not to mention that the character—and more particularly the lie—of the place seemed to me to correspond readily enough with the story that is told about it.

"Let me add that the mountain is so high that, having started at dawn first to see the lake, and then to climb to the top of the mountain, and, apart from our delay, having made a long descent to get back to our horses, and having devoted two hours to refreshment when we were halfway back, we did not re-enter the city until the sun had set and the night was drawing on."

Thus Vadianus, or, to give him his proper title, Joachim von Watt, scholar, professor, and physician. Gesner, who quotes him, and speaks of him with all reverence as "a man renowned for his learning and his piety," proceeds to confute him by an elaborate chain of arguments, adding, "I have ascertained from persons whom I can believe that he subsequently got rid of his doubts and recognized that the whole story was a superstitious legend." Gesner, however, holds a position among the early mountaineers which entitles him to separate treatment in a separate chapter; and in the meantime it is, perhaps, better to anticipate so far as to draw the final picture of the early history of Pilatus, and show how the Pilate legend, through which men had certainly been put in prison, and had possibly been put to death, came to be finally flouted as incredible.

The thing happened seventy-seven years after Vadianus', and thirty years after Gesner's ascent, in 1585. On a certain day in the summer of that year, Johann Müller, Stadt Pfarrer, or State Pastor of Lucerne, went solemnly to the top of the mountain, attended by as many of the citizens as cared to come with him, and in their presence flung stone after stone and clod after clod into Pilate's Lake, and shouted derisively "*Pilat, wirf aus dein Kath,*" and called the company to witness that nothing worse than a ripple resulted from the sacrilegious act.

It was as though men wished to mark with a solemn and appropriate ceremony the end of the dark ages of superstition, and the beginning of the reign of reason and the scientific spirit.


PILATI FACIES ORIENTALIS.
ex Monte Kasiten spectata.

OLD VIEW OF PILATUS.

[*To face p.* 51.

CHAPTER VIII.

Conrad Gesner—His Enthusiasm for the Mountains—His Ascent of Pilatus—His Broad Views about the Pilate Legend.

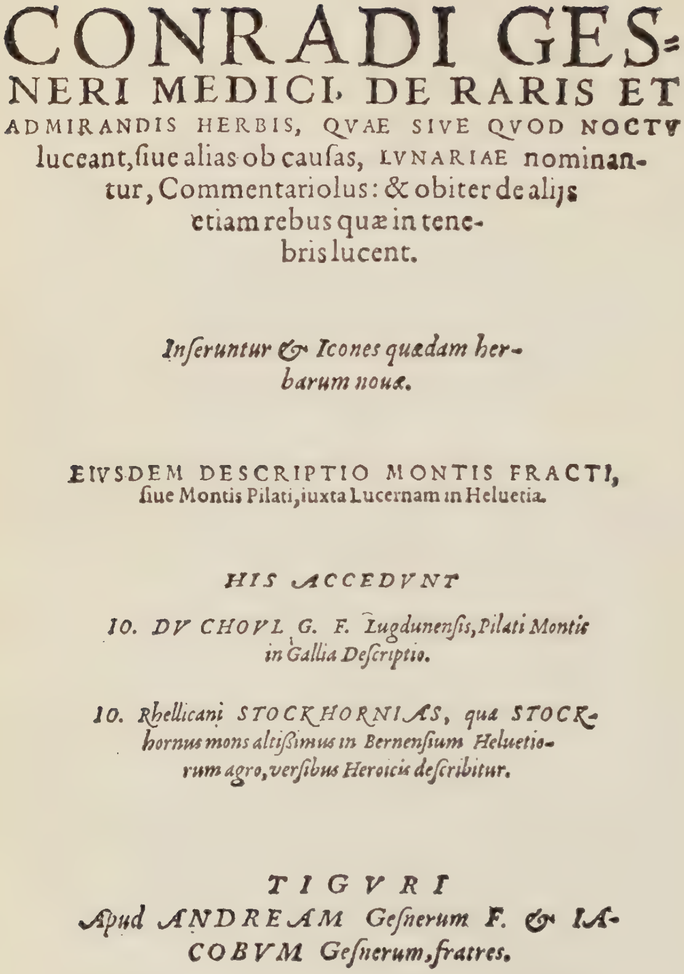
We now come—or, to be strictly accurate, we now hark back—to the case of Professor Conrad Gesner, of the robust intelligence, the first of the early mountaineers who is something more than a name, and whose definite personality it is possible to seize, and understand.

A pupil of Plattner, and of that Oswald Myconius who accompanied Vadianus in his ascent of Pilatus in 1518, he professed philosophy, at the University of Zurich, for four and twenty years, and, like so many Oxford and Cambridge professors of the present day, delighted to devote his vacations to mountaineering. One man one mountain had been the rule until he came upon the scene. A particular ascent was made for a particular purpose, and the climber was content to dwell humbly in the plains for ever afterwards. It was different with Gesner. He loved the mountains, as the hackneyed phrase is, "for themselves alone." The mere fact of being on a mountain had much the same charm for him as that of which the modern mountaineer is sensible; and though he faced no grave difficulties, whether of rock or ice, he climbed continually. His feeling on the matter is nowhere more emphatically set forth than in the dedicatory chapter of a Latin tract which he wrote *Concerning Milk*.

The chapter takes the form of a letter to his friend Vogel, of Glarus, whose name is Latinised as Avienus. Gesner is about to visit Vogel in Glarus, and presumably to climb with him. He does not wish, however, he explains, to visit so good a friend without bringing a gift with him, and he therefore proposes to bring a copy of his work *Concerning Milk*. While leading up to this declaration of his intention, he expresses his enthusiasm for the mountains in no measured terms, pointing out that the mountains were reputed the favourite haunt of the Muses, and that, "though these stories are fables, there is certainly a kernel of truth contained in them." But his most notable utterance runs thus:—

"Most learned Avienus,—I have resolved for the future, so long as God suffers me to live, to climb mountains, or at all events to climb one mountain every year, at the season when vegetation is at its best, partly for the sake of studying botany, and partly for the delight of the mind and the proper exercise of the body. For what, think you, is the pleasure, what the joy of a mind, affected as it should be, to marvel at the spectacle of the mighty masses of the mountains, and lift up one's head, as it were, among the clouds. The mind is strangely excited by the amazing altitude, and carried away to the contemplation of the great Architect of the Universe. . . . Cultivators of philosophy will proceed to contemplate the great spectacles of this earthly paradise; and by no means the least of these are the steep and broken mountain-tops, the unscaleable precipices, the vast slopes stretching towards the sky, the dark and shady forests."

This was written in 1543, when the writer was twenty-seven years of age. It would be interesting, if it were possible, to follow the whole of his subsequent career as a climber, but that cannot be done. The demand for what are now known as Alpine books had not, in those days,



CONRADI GESNERI MEDICI, DE RARIS ET ADMIRANDIS HERBIS, QVAE SIVE QVOD NOCTV
luceant, ſiue alias ob cauſas, LVNARIAE nominantur, Commentariolus: & obiter de alijs
etiam rebus quæ in tenebris lucent.

Inſeruntur & Icones quædam herbarum nouæ.

EIVSDEM DESCRIPTIO MONTIS FRACTI,
ſiue Montis Pilati, iuxta Lucernam in Heluetia.

HIS ACCEDVNT

IO. DV CHOVL G. F. Lugdunenſis, Pilati Montis in Gallia Deſcriptio.

IO. Rhellicani STOCKHORNIAS, qua STOCKhornus mons altiſsimus in Bernenſium Heluetiorum agro, verſibus Heroicis deſcribitur.

TIGVRI
Apud ANDREAM Geſnerum F. & IACOBVM Geſnerum, fratres.

[*To face p.* 53.

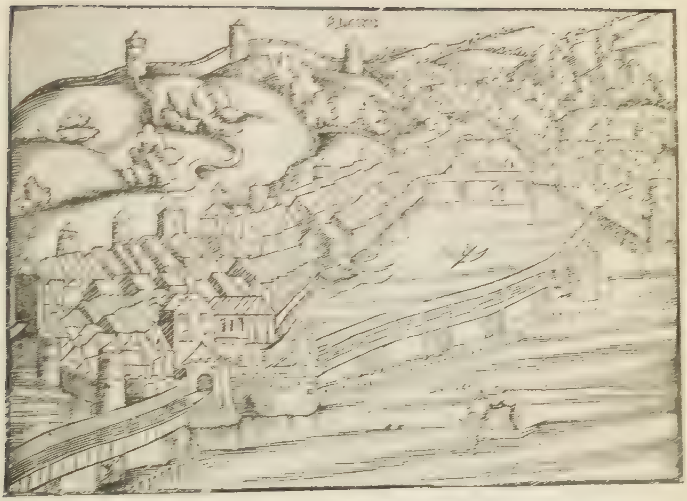
declared itself; and Gesner's only contribution to the subject was the tract entitled *Descriptio Montis Fracti Juxta Lucernam*, published at Zurich in 1555. The most that we can do is to summarise this, and so try to persuade ourselves that we are taking a walk up Pilatus in the company of the Professor.

He begins his story with a brief sketch of the history of Lucerne, and a general compliment to its inhabitants. They "are polished and hospitable, and not a few of them are wealthy; while there is abundant testimony to their courage in war." Then he describes how he started upon his way, and "within an hour there became visible the ruins of an old stronghold, said to have been formerly inhabited by an Englishman." Next he reached the Eichenthal, "where innumerable cows graze, and many huts of shepherds or milkmen and many stables and haylofts are seen." Interspersed with moral and philosophical observations, the narrative proceeds:—

"We spent the night in a hayloft of the Eichenthal, with a kind and hospitable herdsman, who refreshed us with various articles of food derived from milk; though we were also provided with wine, which had been carried up by the public servant who acted as our guide. For we were obliged to take a guide for two reasons: first, on account of the superstitions of the inhabitants, who allow no one to approach the Marsh of Pilate—taking an oath that they will not do so, every year—unless he is accompanied by a respectable citizen, from whose presence they may infer that permission has been accorded by the Prætor. Down the valley flows a stream in which, though it is of small volume and very cold, excellent and fairly large trout are caught. These are the only fish that are found in its higher reaches; further down—about halfway down, for example—crayfish are also found. On the peaks and steep rocky ridges, amid the broken ground from which the Broken Mountain takes its name, there are also the haunts of chamois, and, unless I am mistaken, steinbock—commonly called *capricorni*, and by Homer, in Crete, styled *ἄιναργοι*—and the Alpine mice which we described in our *Natural History of Quadrupeds*; while certain mountain birds, such as Alpine pheasants, and grouse, or white ptarmigan with shaggy feet, make their nests there.

"From the middle of the mountain and the Eichenthal the ascent straightway becomes steeper and more difficult until we reach the highest hut—or *chalet* as it is called by the inhabitants. A little below it, to the right, on the side of the hill, there is a spring concealed in a tiny cave, the pure and cool water of which had a marvellous effect in reviving us after our fatigue, thirst, and heat. We drank from it abundantly, and ate bread which we had dipped in it, and I doubt whether the human senses are capable of any greater and more epicurean pleasure—albeit, it is a pleasure of a particularly sober and frugal kind: for we read that Epicurus, the patron of pleasure, sometimes supped contentedly upon bread and water, because, forsooth, he not only derived a natural and simple pleasure at the moment from his exceedingly frugal meal, but also was sure of a light head and a clear brain on the following day. But remember! In the case of a pleasure which soothes the senses, action and reaction are correlated, just as in a balance, one scale cannot go up without the other going down; and, unless the senses have first been baulked and thwarted, no pleasure can ensue. So that I must confess that a draught of cold water has never been more agreeable than when we were thirsty, and hot and tired—a condition which is particularly likely to supervene in mountainous places, and in the course of long ascents."

Thus started, the Professor proceeds to extol the craft of



THE [illegible]

mountaineering in phrases that were novel enough when he wrote them out, though now they may seem to savour of the obvious and the commonplace. In particular, he insists that every one of the senses derives its own especial gratification from the exercise. The cool air blowing on the heated body, and inhaled with open mouth, delights the sense of touch. "And that same body, when it has had too much of the winds and the cold, will be warmed again by the sun, by the exercise of walking, or by the fire in the herdsmen's huts." As for the other senses,—

> "The sense of sight is delighted by the marvellous and unaccustomed spectacle of mountains, ridges, rocks, woods, valleys, streams, springs, and meadows. So far as colour goes, almost everything is green and blooming. As regards the shape and outline of the things that you see, there are rare and wonderful varieties of rocks, cliffs, broken ground, and so forth—wonderful not only by reason of the form they take, but also on account of their height and size. If you like to strain your eyes, and look out in front of you and around you, far and wide, you find crags and watch-towers, in the midst of which you seem to yourself to be dwelling among the clouds. If, on the other hand, you prefer to concentrate your vision, you will look upon woods and verdant meadows, or you will walk upon them, or in order to pursue your inquiries further, will peer into black valleys, overshadowed rocks, and dark caverns. But there is there a pleasing variety of all phenomena, and more particularly of the phenomena which affect the senses. Nowhere else, indeed, do you come upon such a great variety of phenomena within a short space of time as on the mountains; to mention nothing else, you, on a single day, observe and pass through the four seasons of the year, Spring, Summer, Autumn and Winter. Add to this that, on the summits of the mountain ridges, the whole firmament

of heaven will lie open to your gaze, and you will observe, without let or hindrance, the rising and setting of the stars, and will remark that the sun sets more slowly and rises more quickly than is its wont.

"The sense of hearing will be delighted by the conversation and witticisms of your companions, and by the sweet songs of the birds in the woods, and even by the very silence of the waste. There is nothing here to annoy the ears, nothing to importune them—no tumults or noises from the cities, no brawls of men at strife. Here, from the lofty mountain crests, in a deep and solemn stillness, you will seem to hear the very harmony (if there be such a thing) of the celestial spheres.

"Fragrant scents, moreover, salute you from the grass, and flowers, and mountain plants; for the same herbs have at once a sweeter smell, and a greater power of healing on the mountains than in the plain. The air, too, is far freer and more salubrious here, and not infected with thick vapours as in the plains, or fœtid and laden with disease, as in the cities and other habitations of men. For this air, when it is passed through the nostrils to the brain, or through the windpipe to the heart and lungs, not only does not distress them, but actually delights them."

Next follows a fresh laudation of cold water—cold tea being a beverage as yet unknown to mountaineers—and an expression of enthusiasm for "the mountain fruits and the agreeable confections of milk" which, in Gesner's view, "will be far more grateful to the palate and the stomach after labours of this description than at a time of leisure and repose." Whence he draws the broad conclusion that "the highest pleasures and the keenest delights of all the senses are derived from walking tours in the mountains, undertaken with friends, provided that there is no hindrance from the weather. A weak or feeble man, it is true, could not undertake anything of the kind, nor would one who suffered from a mind diseased derive advantage from it. But,

"Give me a man moderately robust in mind and body, liberally educated, and not too much given over to laziness, luxury, or lust;—and I should like him also to be a student and admirer of Nature, so that from his contemplation and admiration of the great works of the Architect of the Universe, and of the immense variety of natural phenomena that is to be seen among the mountains, on the slopes of a single eminence, he might enjoy an intellectual pleasure in addition to the symphony of the pleasures of all his senses. What other kind of enjoyment, I ask, will you find within the field of nature which is more honourable, greater, or more complete in every respect?"

As for the toil and hardship, what do these matter? The golden rule of moderation must, of course, be observed; people liable to giddiness had better not go too near the precipices; those who are not satisfied with a regimen of milk and cheese must have other food carried up for them by their servants. But on the whole,—

"It will be pleasant to remember the toils and the dangers after they are over, to think of them, and to talk of them to your friends. Nay, more, the very pleasure derived from future rest is the greater when it follows upon hard work, and a man's health is strengthened by it,—provided that, as I assume, he is a man of moderately vigorous constitution. For when you walk, and from time to time jump, all the parts of the body get exercise, all the sinews and muscles work and are stretched. . . .

"But, you say, there are no bedsteads, no mattresses, no feather beds, no pillows. Oh! feeble and effeminate man! Hay shall serve you for all of these. It is soft and fragrant—compounded of the most wholesome grasses and flowers—and will make your breathing in the night watches more pleasant and health-giving than heretofore. Hay shall serve you for a pillow and mattress; hay shall also be thrown over you for a blanket."

All this is marvellously modern. It is, in fact, just the sort of thing that most contemporary mountaineers would say, if it had not ceased to be worth saying. In Gesner's time it was well worth saying, because hardly any of it had been said before. But the Professor has now done with his digression and gets on with his story. Thus:—

"When we had refreshed ourselves, in the highest cowhouse, with rich and delicate milk, and had blown the Alpine horn—which is eleven feet long, and made of two curved and hollow pieces of wood cunningly bound together with osiers—we turned away to the left, under the guidance of the cowherd; and then, walking on three feet—that is to say, leaning upon our sticks which are called alpenstocks and are tipped with iron—we climbed for a long distance up a very difficult hill, where there is no path, and in places crawled up it, clutching at the turf; until at last, after great toil, in the midst of stones and rocks, we reached the top, whence the view extends far and wide, and embraces, among other things, the neighbourhood called Entlebach, which lies to the west of Lucerne.

"At the summit, there emerges from the ridge a rock where it is believed that, in former times, Pilate sat and aroused terrible tempests. We saw letters carved upon it, —the names of climbers who had been there, with the date, and their family crests. Then we descended, to the right, to level ground, where we found a quadrangular space, about large enough to hold six people, with banks rising up on every side of it. Green grass grew upon it, but a bit in the centre, about a foot and a half square, was devoid of grass, the bare soil being exposed, and people say that nothing ever grows there. The story is that an enchanter —one of those known to our ancestors as wandering scholars—a survival of Druidical times, as I have demonstrated in a previous work—stood there while, by means of his incantations, he drove Pilate from his rock down into the marsh that is hard by. Starting again, and striking to the left, we descended a slope for a considerable distance, until, at last, we reached the Lake—or more properly speaking the Marsh—of Pilate, which lies on the level ground at the bottom of a little valley, and is large enough to hold a dozen people. They say that Pilate is at the bottom of it, while his wife is in another smaller lake, near at hand. The surrounding soil is of a marshy character, and the story goes that if anyone throws anything into it, the whole vicinity is in peril of storms and floods."

Here, then, we are once more face to face with the Pilate legend; and the Professor, very properly, has a word to say about it. His attitude towards it, if not quite modern, is at least in advance of his times; and, though he has not quite attained to the scientific temper of a Hume or a Huxley, he plays upon it with the hose of common sense, exclaiming,—

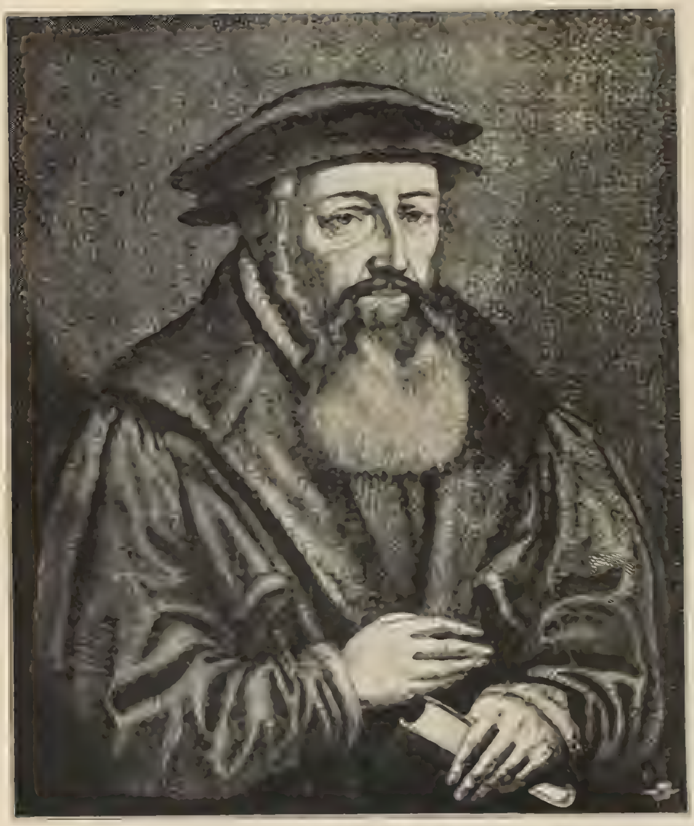
"This belief, having no *raison d'être* in the laws of nature, commands no credence from me. For though it be true that events often follow the course laid down for them by superstitious and false beliefs, that is no reason why men of respectability should repose a simple faith in superstitions. For my own part, I am inclined to believe that Pilate has never been here at all, and that even if he had been here he would not have been accorded the power of either benefiting or injuring human kind. Should any one argue that evil spirits are often divinely endowed with the power of doing things of this sort, and that Pilate acquired the nature of an evil spirit, my answer is that, if evil spirits accomplish evil deeds, one must not assume that they are privileged to do so, but rather that the Lord God allows it in order that the faith of the impious and superstitious, being thus deceived and hardened, may pay the penalty for its impiety and superstition. For it is impious to attribute the cause of any phenomenon to any other author than God. That, at any rate, is my opinion. If any worthy and pious man can teach me better, I shall be glad to hear what he has to say."

Vadianus was a worthy and pious man, but Gesner declines to be taught by him. He reverences Vadianus' character, but examines his propositions. Having quoted his narrative, which was printed in the preceding chapter, he deals with it severely. The whole Law of Causation, as Gesner understands it, is at variance with the views of Vadianus. "Although," he says, "I am aware that the causes of many things—which no one denies to be natural causes—are hidden from us, still wise men, as a rule, even though they may have their doubts about the causes of phenomena, and may be unable to adduce any certain or immediate causes for them (as in the case of the attraction of the iron by the magnet) can at any rate say, without any beating about the bush, whether the things that happen are in accordance with the laws of Nature. Nature assuredly draws no distinction between things that happen by accident and things that are done on purpose; straw burns just the same when fire has accidentally fallen upon it as when fire has been intentionally thrown upon it."

Nor, Gesner continues, is Nature maleficent as Vadianus would make out; and we must not attribute to Nature these evil practices which are more appropriate to evil spirits, and evil men, and those who are contaminated by dealings with the devils. On the contrary, "If there is any sorcery in the lake it is not the work of Nature, but of some evil spirit, whether you call that evil spirit Pilate or by some other name." But, though Gesner believes in evil spirits, he declines to be intimidated by them. He says bravely :—

> "The whole earth, in fact, is full of evil spirits which, by reason of our unbelief and superstition, are everywhere doing a great deal of harm, and are wont to display their powers most ostentatiously in solitary places and localities which have some religious association. But, if a man confront them in a truly pious and believing frame of mind, relying upon nothing but Divine favour and support, strong in his contempt for them, and firm in his persuasion that the things which they do are the work neither of God nor of Nature, that man will assuredly remain tranquil of soul and unharmed in body and estate. On the other hand, if a man turn away from Divine grace, and from the light which illuminates the world, and betake him to caves and places of darkness, he will find there many horrible and evil spectres, and various sources of panic and terror, which are quite powerless to harm the pious who worship the one celestial light, and Christ the Sun of Justice."

So Gesner writes; and as we unravel the intricate tangle of his Latin sentences—printed, as they are, with all sorts of puzzling and abominable abbreviations—the personality of the man stands definitely out before us: A learned professor, with all a learned professor's lofty scorn for those inferior professors who can see no further than their noses; the learning has been superseded, but the scorn is still a living thing; we can observe its like in many an Oxford lecture-room to-day. An out-of-door man, too, at a time when the only proper place for the learned professor was supposed to be the study; the spiritual ancestor of such mountain explorers as Humboldt, Ramond de Carbonnière, De Saussure, and Tyndall; his enthusiasm for the due exercising of his limbs and muscles is in clear and refreshing contrast with his successor, Professor Scheuchzer's, whining *Anhelosæ quidem sunt scansiones montium.* Finally, a devout and pious man, with whom faith in God is a matter of course, to be confirmed, and not sapped, by scientific observation of the phenomena of Nature, and the free play of keen common sense. Altogether a notable figure,—by far the most notable in the gallery of early mountaineers; a man whom, if he could come to life again, any modern mountaineer would be glad to climb with; a man whom we seem to know as a friend, and of whom we take our leave with real regret.



[illegible]

[illegible]

CHAPTER IX.

Josias Simler and the Beginnings of Snow Craft—His Directions for Travelling on Glaciers.

Josias Simler, who comes next, is a far more shadowy figure than Conrad Gesner. The leading facts in his life are sufficiently well known, though it is just to add they are of no particular interest or importance. He succeeded Gesner in a Zurich professorship; he was one of the innumerable Swiss scholars from whom Gesner's death drew Greek or Latin elegiac verse; he took holy orders; he wrote many learned books; and he died of gout at the age of forty-five. We cannot doubt that Gesner's great example gave him an interest in the mountains, if not an enthusiasm for them. But we can hardly be sure even of so much as this. The personal note is wanting in his writings. It is always the scholar and never the man who speaks to us. He claims a place in this volume, however, as an early historian of the Alps, and as the first writer who brought his talents to bear upon snow craft.

This snow craft must, in the nature of things, have been a very early craft. Long before the mountaineers began to trouble their heads about the peaks, or philosophers to concern themselves with the origin of glaciers, the Alpine traders were accustomed to traverse passes—and even snow passes—in the ordinary course of business. We shall see that, in the middle of the eighteenth century, the glaciers of Savoy were still objects of curiosity tempered with awe. But the inhabitants of the valley of Chamonix had long been aware of a way over the Col du Géant to Courmayeur; the Great St. Bernard, as we have seen, was known from an earlier period; while, though Zermatt had hardly been visited by travellers until Bourrit came there, there have been frequent discoveries of Roman coins close to the top of the Théodule Pass. And, of course, in those days, as at the present time, there were avalanches to be avoided, crevasses to be crossed, and slippery ice slopes to be negotiated.

Simler writes of these things in his *De Alpibus Commentarius*, published in 1574. As has been said, the personal note is wanting, and is missed. For a few anecdotes of actual experience one would gladly barter all the quotations from Xenophon and Silius Italicus. Still, in spite of the impersonal style, there is some reason to presume that Simler was himself an Alpine wanderer, if not an Alpine climber. Otherwise he would have made mistakes and fallen into superstitious errors. As it is, his precepts are singularly practical, and modern experience has comparatively little to add to them.

"Concerning the Difficulties of Alpine Travel and the Means by which they may be Overcome" is the title of the chapter in the book which most concerns us. The writer's horror of narrow paths fringed by precipices need not detain us; similar sentiments on this subject still prevailed at the beginning of the present century, and find eloquent expression even in Daniel Wall's translation of Ebel's guide-book, wherein travellers are warned to beware of the perils of the Sannetsch. More interest attaches to the statement that merchants from either side of a pass used to agree to meet, at a preconcerted time, at the top, where, the ground being level, their caravans could cross each other without inconvenience. This incidentally throws a flood of light on the large use made of these passages in the middle ages. But the chief interest begins with the account of the various means adopted for negotiating slippery ground. Clampons, as well as alpenstocks, were, it will be seen, well known to Simler.

"To counteract the slipperiness of the ice, they firmly attach to their feet shoes resembling the shoes of horses, with three sharp spikes in them, so that they may be able to stand firmly. In some places they use sticks tipped with iron, by leaning upon which they can climb steep slopes; these are called Alpine sticks, and are principally in use among the shepherds. At other times, again, shepherds and huntsmen descend steep places which can be negotiated in no other way, by cutting down the boughs of trees, more particularly arbutus trees, sitting straddle-wise on them, and, as it were, riding down on them. And, when loaded carts have to be got down places of this character, they sometimes lower them by thick ropes, with the aid of windlasses and pulleys."

This branch of the subject having been developed at some length, Simler gets on to the glaciers, his observation of which is remarkably exact. He notes the danger of ice avalanches, and proceeds:—

"Besides this, the old ice which sometimes has to be traversed has crevices in it, three or four feet wide—and sometimes even wider—into which, if a man fall, he must indubitably perish. It may happen, however, that these crevices are masked by fresh snow, or by snow accumulated by the wind, so that travellers in the Alps hire guides who know the neighbourhood to go before them. These men tie ropes round their waists, to which those who follow them are attached, and the leader sounds the path with a long pole, and carefully looks out for the crevices in the snow. But if an imprudent man falls into one of them, he is held up and pulled out by his friends who are fastened to the same rope. Where there is no snow covering the chasms the danger is less, though, where there are no bridges, it is necessary to jump across them. Only, when they are driving beasts of burden over such places—a thing which is done sometimes, though not often—they carry planks with them, and make little bridges for the beasts to cross upon."

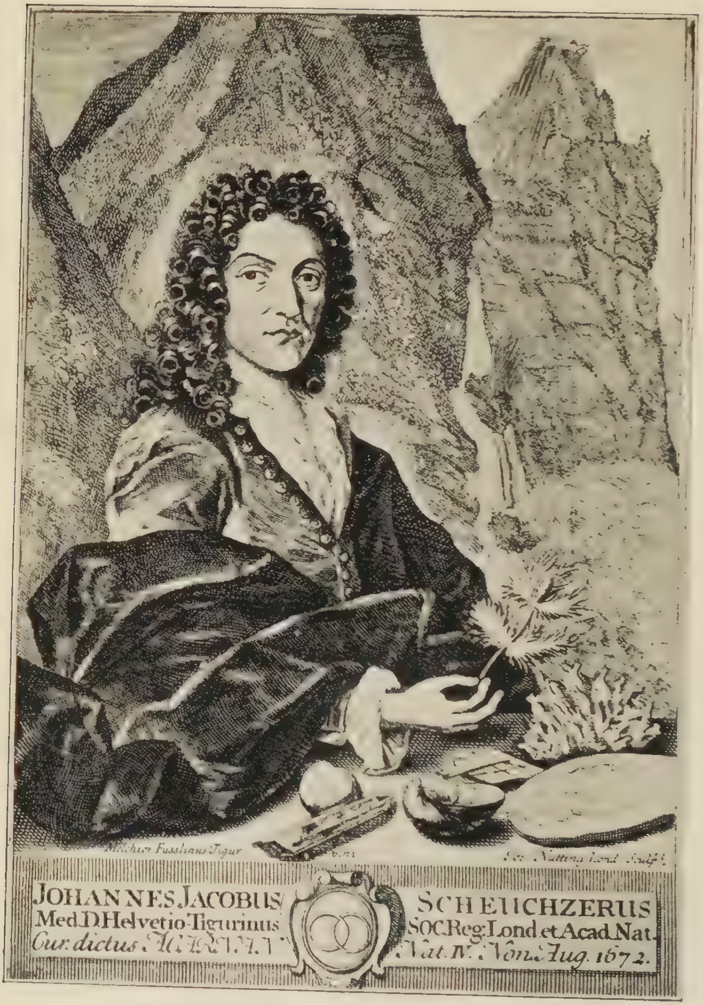
All this is very good, and very practical, only needing some reference to the necessity of keeping the rope taut to bring it quite up to date. The next difficulty considered is that of walking through deep and powdery snow. For this purpose Simler recommends a kind of snow-shoe, made of flat circular pieces of wood, like the tops and bottoms of wine casks. Then he embarks on a careful discussion of avalanches. These, he explains, are started by the most trivial of causes—by the flight of a passing bird, or the voice of a passing traveller, for instance—and, sweeping away with them trees, houses, men, and beasts, carry them to the very base of the mountains. "This sort of snow often covers an area of several acres, and falls with such a crash that the very earth seems to be shaken, and people dwelling far away, who have no knowledge of what is happening, think that they hear the sound of thunder." Simler knows plenty of stories of men having been buried alive beneath such avalanches, but he remarks that, "If a man is able to move his hands about, and clear a little space around him before the snow has hardened, he acquires a certain power of breathing underneath the snow, and may keep alive for two or even for three days."

The places where such avalanches fall are well known, and the better way is to avoid them. When that cannot be done, travellers diminish their danger by starting very early, before the sun is up, and by hurrying past the perilous places in silence. Frost-bite and snow-blindness are other troubles that the traveller has to face, and Simler says:—

> "Against these calamities various precautions are taken. The eyes should be protected by some dark material, or by what they call glass spectacles, and the rest of the body should be well fortified against the cold by skins and thick garments. The chest is best guarded against cold winds by paper or parchment, and if the feet have got numbed, the boots are taken off and they are plunged into cold water, to which warm water is gradually added. For by this means they are believed to get all right again. The most useful thing of all, however, is to keep continually moving; for it sometimes happens, in climbing a mountain, that men are warmed by their exertions, and fancy that they feel no cold; but if they sit down on the snow to rest, drowsiness soon overcomes them, and, almost without any sensation of pain, they fall asleep, and become benumbed and die."

Scholars, Simler adds, are acquainted with the phenomenon from the works of Xenophon, but the inhabitants of the Alps know it from experience. In conclusion, he touches upon tempests, mentioning that they are no less dangerous on the mountains than at sea, and were not unknown to Silius Italicus, casually refers to the hospices which already existed on the most frequented passes, and quotes Pliny, Cato, and Xenophon for the names locally given to various violent and disagreeable winds.

And there Josias Simler may be left. We learn from him how much older are snow craft and ice craft than is the specialised mountaineering, which consists in climbing things for the satisfaction of getting to the top of them. His precepts, all things considered, are very sound, and their soundness is a reason for believing that he learnt them from practice, and did not pick them up from hearsay. But he is only a scholar, not a living personality like Conrad Gesner. Nor do we find a living personality among the early mountaineers until, more than a century later, we find another Zurich professor—Professor Scheuchzer—tramping the Alps from end to end, and recording his impressions of glaciers and dragons.


Melchior Fusslinus Figur
Nutting Lond. Sculp.
JOHANNES JACOBUS SCHEUCHZERUS
Med.D.Helvetio-Tigurinus SOC.Reg.Lond.et Acad.Nat.
Cur. dictus [illegible] Nat. IV. Non. Aug. 1672.

SCHEUCHZER.

[*To face p.* 69.

CHAPTER X.

Johann Jacob Scheuchzer—His Views about Glaciers—His Views about Dragons.

"PERHAPS the first attempt at forming a glacier theory is that of Scheuchzer," says Professor Tyndall in *The Glaciers of the Alps*. It is at all events quite certain that before Scheuchzer gave his mind to the matter, the popular view—and even the scientific view—of glaciers was extremely crude. To get the popular view we cannot do better than quote an extract from a certain *Chronique de Savoye*, published by the ecclesiastic, Guillaume Paradin,[1] at Lyon, in 1552. It may be supposed, though no names are mentioned, that the reference is to the glaciers that issue from Mont Blanc:—

"Marvellous and prodigious are the fields of ice, hardened by a lapse of time extending, it is believed, for two or three thousand years, covering the summits of the mountains, and never melting or dissolving in any way; and this ice is neither a stone nor a metal, and, save in respect of light and transparency, hardly differs from crystal; and this ice is found on high mountains which face the South. And, in some places, the ice has filled the valleys, and got hardened into stones. And this ice is of such a character that it purges itself, alone and unaided, so well and perfectly, that there remains upon it neither stone nor wood, nor any other substance whatsoever; it remains, in fact, as pure as though it were clear crystal. This ice has, in some places, a very great depth, for it splits itself in many cracks and very dangerous crevices, even in places where it is necessary to pass, and is the more dangerous when these crevices are covered with snow, so that one cannot perceive any danger. Some such crevices are quite three hundred ells in depth; some say that they are four hundred fathoms in depth. It happens sometimes, in summer, that this ice splits, making such a noise and rumbling that it seems as though the earth were about to split into chasms."[1]

---

[1] Guillaume Paradin (1510—1590) was Canon, and afterwards Dean, of Beaujeu. He acted as tutor to the children of Prevost, Lieutenant-General of Dijon, who bequeathed him his collection of antiquities, and so directed his tastes towards historical research. He wrote many books, the most interesting of which bore the remarkable title: *Blason des danses ou se voyent les malheurs et ruines venant des danses, dont jamais homme ne revient plus sage ni femme plus pudique.* There were three editions of the *Chronique de Savoye*, in 1552, 1561, and 1602. It is not actually known that the author visited the Mont Blanc glaciers, but there seems a strong presumption that he did.

And so forth, the remainder of the passage being to the effect that glacier water is good for dysentery, fever, and other maladies, and that if the crystal which is found in glaciers be powdered and mixed with wine, the result is a valuable astringent medicine.

---

[1] "C'est chose admirable, et prodigieuse des glaces, qui sont endurcies par trait de temps (comme lon tient) depuis deux ou trois mille ans, et ont couvert les sommités des montaignes, sans se fondre ny resouldre aucunement, et combien que telle glace ne soit pierre, ny metal, si est ce qu'en lueur, et transparence, n'est gueres differente de pur Cristal, et se treuvent telles glaces en haultes montaignes, tirant contre le Midy. Et en aucuns lieux ont rempli les valees, et se sont endurcies en pierrés. Et est ceste glace de telle nature, qu'elle se purge de soymesme, si bien, et parfaitement qu'il n'y demeure ny pierre, ny bois, ni autre matière quelconque tellement qu'elle demeure purifiée, comme fin Cristal. Cestè glace a en aucuns lieux une profondité fort grande. Car elle se fend en plusieurs fendaces, et ouvertures fort dangereuses, mesmement es pas et des traits ou il est force de passer, et encore plus, quand telles crevasses sont couvertes de neige, que l'on ne peult appercevoir aucun peril; il se treuve de telles crevasses qui ont bien trois cens aunes de profondeur: aucuns disent quatre cens brasses. Il advient que ceste glace quelquefois en temps d'Esté se fend, rendant si grand bruit et mugissement, qu'il semble qua la terre se doive fendre en abisme."

This, we may take it, is the earliest popular appreciation of glaciers. Scientific appreciation begins in the Dutch letterpress of Merian's *Topographia Helvetiæ*, where the motion of glaciers is noted, and illustrated by the story of a house which a glacier overthrew. That was in 1644. The next contributions to the subject are found in the *Philosophical Transactions of the Royal Society*, the earliest of them appearing in the year 1669, and running thus:—

"*Extract of a Letter written by Mr. Muraltus, of Zurich, to Mr. Haak, a Fellow of the R. Society, concerning the Icy and Chrystallin Mountains of Helvetia, call'd the Gletscher.*

"The highest icy mountains of *Helvetia* about *Valesia* and *Augusta*, in the Canton of *Berne*, about *Taminium* and *Taretsch* of the *Rhœtians*, are always seen cover'd with snow. The Snow, melted by the heat of the Summer, other snow being faln within a little while after, is hardn'd into Ice, which by little and little, in a long tract of time, depurating itself turns into a Stone, not yielding in hardness and clearness to Chrystall. Such Stones, closely joyned and compacted together, compose a whole Mountain, and that a very firm one; though, in Summer time the Country-people have observed it to burst asunder with great cracking, Thunder-like: which is also well known to Hunters to their great cost, for as much as such cracks and openings, being by the Winds covered with Snow, are the death of those that pass over them."

Here, it will be seen, science adheres to the popular view that glacier ice is a kind of stone. A second article on the same subject, accompanied by illustrations, appeared in the *Philosophical Transactions* for 16$\frac{73}{74}$. It is rather descriptive than speculative; this is the text of it:—

"*A farther Description and Representation of the Icy Mountain, called the Gletscher, in the Canton of Berne, in Helvetia: which was formerly taken notice of in Numb.* 49 *of these Tracts.*

"This account was imparted to us from Paris by that worthy and obliging person, *Monsieur Justel*, who had received it from a trusty hand living upon the place, as follows:—

"The Icy Mountain, of which I have sent you the Scheme, deserves to be view'd. The letter A signifies the mountain itself, which is very high, and extends itself every year more and more over the neighbouring meadows, by increments that make a great noise and cracking. There are great holes and caverns, which are made when the Ice bursts; which happens at all times, but especially in the Dog-days. Hunters do then hang up their game they take during the great heat, to make it keep sweet by that means. Very little of the Surface melts in Summer, and all freezeth again in the night. When the Sun shineth, there is seen such a variety of colours as in a Prism.

"B is a rivolet, issuing forth from under the Ice, which is pretty deep and extremely cold.

"C are the Hutts, that were built at the beginning, at a considerable distance from the Mountain; but at present they are nigh to it by reason of the continual increase which this Ice maketh.

"There is such another Mountain near *Geneva* and upon the Alpes. A certain *Capucin* told me he had been upon the highest of these mountains with a Trader in Crystal, who having driven his hammer into one of these rocks, and found it hollow and resonant, made a hole into it, and thence drew forth a substance like *Talk;* which to him was a sign there was Crystal. After which he made a great hole with Gunpowder, and found Rock-crystal in it."

Finally, in 1701, a letter about the Grindelwald glaciers was addressed to Dr. Hans Sloane, of the Royal Society, by William Burnet, the son of the Bishop, and subsequently made its appearance in the pages of the same publication. It is a narrative of a personal experience, and shows that the phenomena of glaciers, and more particularly their movements, were at last beginning to attract the attention of the curious. Thus:—

"GENEVA,
"*October* 12, 1708.

"SIR,—After I had been at *Zurich*, I resolved to go myself and see the Mountains of Ice in *Switzerland*. Accordingly I went to the *Grindlewald*, a Mountain two Days' Journey from *Bern*. There I saw, between two mountains, like a River of Ice, which divides itself in two Branches, and in its way from the top of the Mountains to the bottom swells in vast Heaps, some bigger than St. *Paul's* Church, the Original of which seems to have been this. These Mountains are covered all the Year with Snow on their Tops; this Snow has been melted in the Summer, and has fallen to the Bottom which the Sun never reaches. There it has Frozen, which everybody knows happens more easily to melted Snow than ordinary Water. Thus every year it has increased, till it has touched the very Top. The reason why the Water has always frozen, tho' the Sun in the middle of the Mountain, and higher, shines upon it some part of the Day, is that the melted Water goes under the

Ice already formed and there Freezes, and so expanding itself raises the Ice above it, and sometimes makes Cracks in it, that frighten the whole Neighbourhood: the reason appears plainly, because the upper Surface being solid, cannot be dilated without making great Chinks, and that with a terrible noise. They told me, upon the Place, that every seven Years the Mountain increases and the next seven decreases; but I doubt this Observation is not exact, and I suspect that they say it, to seem to know something singular. Besides there are none there that have themselves observed it long enough, to affirm anything of that kind certainly. If there is any Ground in that Observation, it seems to be, that in the hottest Summers it increases, and the more moderate ones it decreases, there being then less melted Snow; in which case it is at present, as we know of late the Summers have been moderate."

Adding these observations to those already quoted from Josias Simler, we can form a very fair idea of the sum of human knowledge concerning glaciers at the time when Johann Jacob Scheuchzer came upon the scene.

Born in 1672, Scheuchzer became, like so many of the early explorers of the Alps, a Professor at the University of Zurich. His reputation stood so high that, on the suggestion of Leibniz, he was invited to take up an appointment at St. Petersburg; but Zurich gave him preferment, promoting him from the Chair of Mathematics to the Chair of Physics, and he stayed there. Between 1702 and 1711 he devoted several vacations to travel in the mountains, and ultimately published his experiences in a book entitled Οὐρεσιφοίτης *helveticus, sive Itinera per Helvetiæ Alpinas regiones facta annis* 1702-3-4-5-6-7-9-10-11. It is a large book in two bulky volumes, profusely illustrated with maps, diagrams, and pictures of various kinds. It is dedicated to the English Royal Society; and various members of the

Royal Society, including Sir Isaac Newton, contributed to the expenses of its publication by paying for the production of certain of the prints. When one has read it, one feels that one knows Scheuchzer the man, as well as Scheuchzer the Professor.

One knows him first of all as a singularly short-winded climber. Though he stuck to the beaten tracks, he found them very tiring; and there is a touch of humour in his constant complaints of the toil which the ascending of hills involves. He admits that he did not get quite to the top of Pilatus, "partly because of bodily fatigue and partly because of the distance remaining to be traversed." He derives the name of the Gemmi from the Latin *gemitus,—quod non nisi cum crebris gemitibus superetur.* He sums up his views on the subject in the remark that "the climbing of mountains takes one's breath away, though it may be rendered less unpleasant by agreeable conversation." And yet, in spite of the discomfort of the exercise, Scheuchzer climbed on heroically in the interest of the advancement of learning, taking barometrical observations wherever he went, and almost invariably bringing out ludicrously wrong results. So much alone would have made him an interesting figure.

He is the more interesting, however, because of the curious way in which he combined credulity with enlightenment. As a man of science he laboured to propagate the discoveries of Sir Isaac Newton, and speculated plausibly concerning glacier motion; as a citizen he did his best to procure the abolition of capital punishment for witchcraft. But his weakness was an irresistible disposition to believe whatever he was told, with the result that he was convinced that there were dragons in the Alps, and that the chamois was invulnerable if it had a certain growth upon its forehead.

His theory of glaciers, for example, though other theories have since superseded it, is conceived in a spirit of sober common sense, and is evidently the result of first hand observation of the facts. Here it is, in his own words:—[1]

"Their progressive increase, and the effects that follow from it, are not to be attributed to miracle, as is imagined by persons who are ignorant of physical science,

---

[1] "Progressivi hujus accrementi et effectuum hinc dependentium causa non miraculo alicui, quod rerum physicarum imperiti somniant, sed omnino causis naturalibus adscribi debet. Solet nempe Aqua a Tergo Montium Rupium-ve Glacialium defluens vel in fissuris ipsis et instertitiis aliis glacialibus collecta, et utrobique conglaciata quoniam amplius in hoc statu requirit spatium (contestantibus id experimentis circa frigus et glaciem institui solitis) undiquaque premere et eam quidem glaciei partem, quæ Liberum Aerem respicit, et pascua declivia actu ipso propellere, et una cum glacie arenam, Lapides, saxa etiam grandiora, quo ipso Hyperbolica illa purgatio Simul explicari et facile intelligi potest. Confirmant hanc meam opinionem observationes factæ a Domino *Meyero* Vitodurano, Pictore Topiario præcellente, qui plus semel curiositatis gratia Montes Glaciales adivit, ut ad vivum eos delinearet."

It is interesting to compare with this an early poetical appreciation of the glaciers, taken from *Le Tableau de la Suisse*, by Marc Lescarbot, published at Paris in 1618:

"Il me plait seulement retourner aux glacières,
Et dire les effects de leurs basses fondrières,
Car il y a dequoy grandement s'etonner
A quiconque en voudra les causes ruminer,
Et curieux, songer comment il se peut faire
Que de ce faux cristal l'eau soit si pure et claire
Qu'il n'y ait au dedans terre, pierre, ni bois,
Nuage n'autre ordure, anisi que maintefois
Dans noz glaces se void: comment (ô chose étrange)
Peut une eau se glaçant imiter la vendange
Qui chasse du tonneau toute ordure au dehors
Par le bouillonnement de son chaleureux corps:
Comment sept ans durant s'augmente cette glace,
Et sept ans diminue en la terre plus basse:
Et comment és hautz lieux elle se va poussant
Par-dessus tous les monts en poinctes se haussant.
  Mais ce ne sont ici les plus rares merveilles
Diques qu'on les raconte aux plus doctes aureilles,

but to entirely natural causes. For what happens is that the water which flows down from behind the mountains or the icy rocks, or has collected in the fissures and other icy interstices, freezes, and expanding as it does so (a phenomenon which experiments attest), exercises pressure in every direction, and propels in front of it that part of the glacier which has the open air for its boundary, and drives along, together with the ice, sand, stones, and even large rocks. . . . This opinion of mine is confirmed by observations made by Master Meyer, the excellent landscape painter, who has more than once visited the glaciers to satisfy his curiosity and to sketch them from nature."

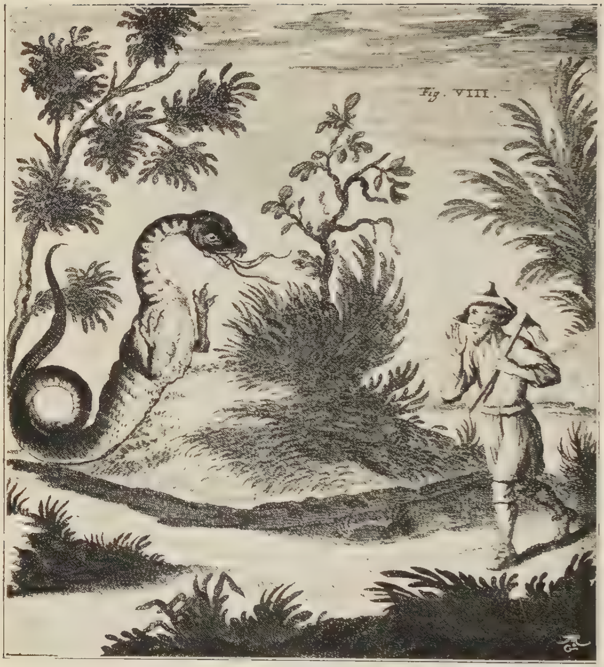
The hypothesis, though incorrect, is not unworthy of an earnest seeker after truth ; and the results of Scheuchzer's botanical researches added some valuable contributions to

Car és grands chaleurs de la chaude saison
Ces glaces quelquefois rompans leur liaison
Font un tel muglement qu'il semble que la terre,
Et chacun élement qui de ses bras l'enserre
Se voisent retournant à la confusion
De l'ancien chaos, et de la fraction
Se fait une ouverture horriblement profonde
Capable de tenir tous les hommes du monde
(Au moins en apparence) et lors fait dangereux
Se trouver és endroits de ces gouffres si creux,
Comme aussi quand en est estroite l'ouverture,
Et la nege au dessus lui sert de couverture.
Car s'il advient qu'un homme ou quelqu' autre animal
Sans prendre garde à soy cheminant tombe à val,
Et soit reçu dedans cette roche glacée
Que deux fois deux mille ans ont toujours amassée,
C'en est fait pour jamais, nul ne se peut vanter
De luy sauver la vie, ou secours apporter.
La mortelle vapeur du profond de l'abyme
Le devore soudain et renvoye à la cime,
Chose qu'on ne croira, laquelle toute fois
De croire suis forcé par la commune voix."

the knowledge of his age. But he also believed in dragons; and, in order to complete our picture of the man, it is necessary to follow the chain of argument by which he satisfied himself of the presence of these monsters in the Alps.

The Professor was led to pursue the subject by the discovery that there were graven images of dragons on public buildings, and a so-called "dragon-stone" in a private museum at Lucerne. A dragon-stone, he explains, is a jewel which is cut out of a dragon's head while the dragon is asleep. Should the dragon awake under the operation it will die, and the jewel will disappear. So it is necessary to keep the dragon drowsy by scattering about plenty of soporific herbs, or, as some recommend, by means of incantations. Doing this, you may get your dragon-stone, and having got it, you will find it a sovereign remedy against plague, dysentery, diarrhœa, poison, hemorrhage, and bleeding of the nose. All this Scheuchzer narrates with the air of one who is keeping well within the domain of the established fact. The only open question for him is: Is the Lucerne stone really a dragon-stone or not? He concludes, for two reasons, that it is.

In the first place, he urges, if the peasant from whom the museum acquired it had been a liar, he would have told a much more startling story—would have said, for instance, that it came from the Indies instead of giving it any such obvious and ordinary origin as the head of a Swiss dragon. In the second place the healing efficacy of this particular stone is attested by sworn evidence; and though some other kinds of stone might have cured hemorrhage, only a dragon-stone could have cured dysentery or plague. Then there is the fact that the Alps in general, and the Rhœtian Alps in particular, are full of the very sort of caves which dragons might reasonably be expected to frequent. So that the *à priori* probability of the existence



JOHN TINNER'S DRAGON.

[*To face p.* 79.

of dragons in the Alps is established, and it only remains to marshal the *à posteriori* proofs of their presence there.

These proofs take the convenient form of the depositions on oath of various witnesses who have encountered dragons. In style and substance—and even, it may be added, in conclusiveness—they bear a striking resemblance to those circumstantial narratives by means of which the existence of ghosts has been demonstrated by the Society for Psychical Research. They prove that, though all dragons have certain unmistakable points of resemblance—they all, for example, when they breathe, inhale not only air but also any birds that happen to be flying about in their neighbourhood—the minor variations which they exhibit are numerous. There are dragons with and without wings, with and without legs, with and without crests; dragons with cats' faces, with human faces, and with nondescript faces; dragons that breathe fire, and dragons that do not breathe fire; and so forth, each kind of dragon being vouched for by a special deposition. Here, for instance, is the deposition about a dragon seen in the neighbourhood of Zurich :—

"On Mount Frumsanus, in the Barony of Altensaxus, two varieties of dragons or large serpents are met with—the one with feet, and the other without feet. They are thus described by Wagner, in his *Natural History of Helvetia*, pp. 247 and 251 :—

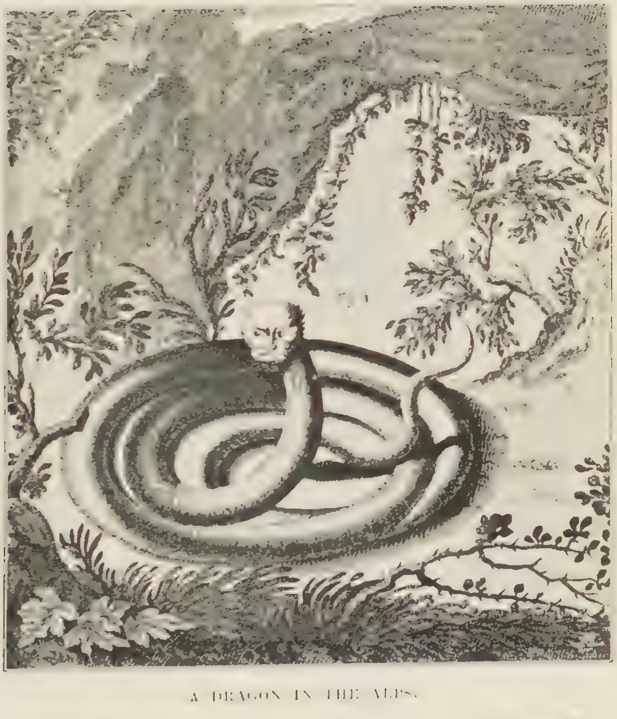
"'John Tinner, of the Commune of Frumsen, in the Barony of Altensaxus, an honorable man, whose word can be trusted, and who, at the present time, is still living, solemnly deposed to me that, twelve years since, at the end of the month of April, he repaired to the neighbouring mountain, the Frumsenberg, and that there, in the place commonly known as the Hanwelen, encountered a terrible serpent, black and grey in colour, which first coiled itself up and then raised itself upright. Its length, he said, was at least seven feet; its girth was about that of an apple tree; it had a head like the head of a cat, but no feet whatsoever. He said that he struck and slew it with the assistance of his brother Thomas. He added that, before this serpent was killed, the inhabitants of the vicinity complained that the milk was drawn from the udders of their cows, and that they could never discover the author of the mischief, but that, after the serpent was killed, the mischief ceased.' "

So much for dragons without feet. Then follows an equally well-attested story of a dragon with feet, running thus:—

"John Bueler, of the Parish of Sennwald, member of the Ecclesiastical Assembly, went to the Frumsenberg, in the summer season, eleven years ago, and in a place called Erlawäld, beside the stream called the Kalenbach, saw an enormous black beast, emerging, in a state of the greatest amazement, from a thicket, and standing upon its four legs, which were of no excessive length. Its girth was about the thickness of an apple tree, and it carried a crest, half a foot long, on its head. Its entire length, however, he could not observe, because its hinder parts lay hidden in the thicket, among the briars."

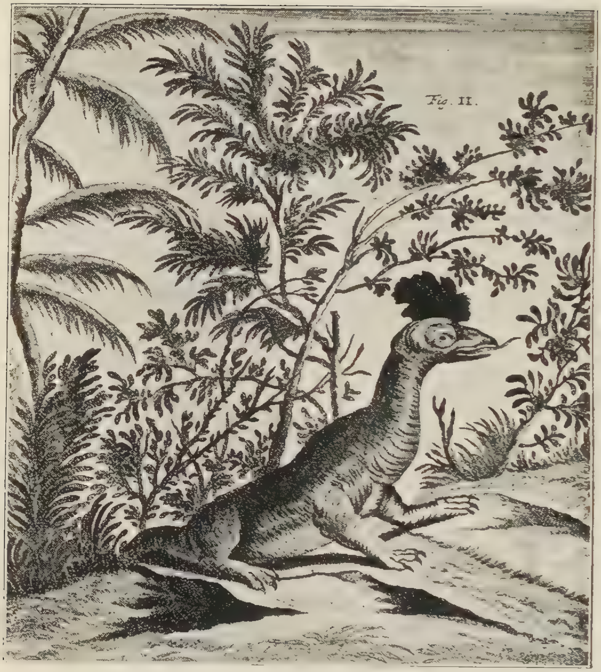
Finally, from the letters of Christopher Schorer, Prefect of Lucerne, Scheuchzer is able to quote a circumstantial account of an encounter with a winged dragon very much like the one which, as we have seen in an earlier chapter, Peter of Arragon declared that he had had to deal with on Pic Canigou. This is the Prefect's narrative:—

"In the year 1649, I was contemplating the beauty of the heavens by night, when lo! and behold, I saw a bright



A DRAGON IN THE ALPS.

[*To face p.* 80.



A DRAGON IN THE ALPS.

[*To face p.* 81.

and shining dragon issue from a large cave in the mountain commonly called Pilatus, and fly about, swiftly flapping its wings. It was very large; its tail was long; its neck extended; its head terminated in the serrated jaw of a serpent. While it was flying, it threw out sparks, just as the red-hot horseshoe does when hammered by the blacksmith. My first impression was that I saw a meteor, but after careful observation, I recognised that it was a dragon, from the nature of its movements and the structure of its various limbs."

And so forth. For Scheuchzer fills many pages with these *procés verbaux* of credible witnesses who have met dragons face to face among the mountains. His belief in the beasts is as firm as the belief of his great forerunner, Gesner, in the essential beneficence of Nature. But we do not grudge it him; for his credulity in this regard is the final touch of human nature which still keeps him alive for us in spite of the long intervening years. Panting up the hillside in pursuit of knowledge, jesting genially at his own infirmities, keenly observing all the facts of natural history that invited observation, and seeking out some ingenious scientific explanation for any fable that any guide or peasant told him to beguile the tedium of his journey, he is no shadow of a name, but a real man whom we can know and like—can like all the better, perhaps, because he so often allows us the privilege of a smile at his expense.

CHAPTER XI.

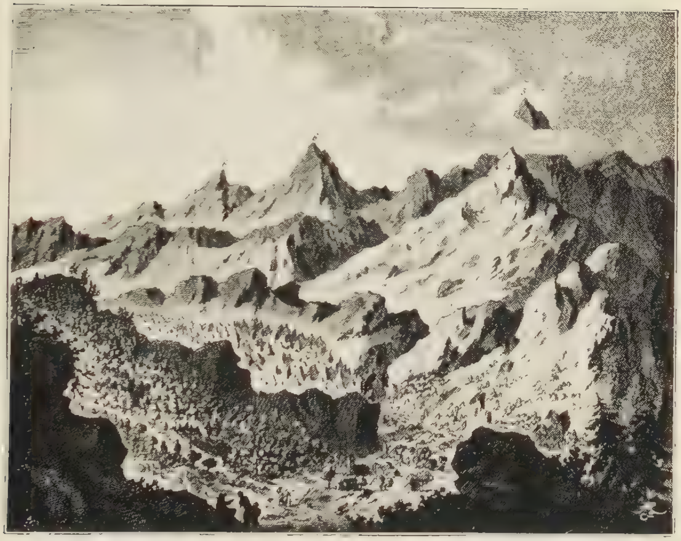
The Early History of Chamonix—An appreciation of the Glaciers by Monsieur Le Pays in 1669—The Excursion of Windham and Pococke in 1741—The Expedition of Peter Martel in 1742.

Though the climbing of permanent snow peaks was to begin in the Valley of Chamonix, the place came within the purview of travellers later than the rest of Switzerland. Its early history, such as it is, may be studied by the curious in the admirable works of M. Charles Durier and M. André Perrin.[1] They will read there many weird and gruesome stories, to which space cannot be given here, of oppressions and revolts, heresies, sorceries, and torturings. But Chamonix had no interest, in those days, for the outside world. It is possible that Guillaume Paradin visited it in the first half of the sixteenth century, but there is no certain evidence that he did. Geography only begins to recognise it with the publication of the second edition of *Mercator's Atlas* in 1595; and the earliest literary reference to its glaciers is found in *Les Nouvelles Œuvres de Monsieur Le Pays*, published at Amsterdam, in 1677.

A word of introduction, therefore, to Monsieur Le Pays. His full style and title was René le Pays, Sieur du Plessis-Villeneuve, and he was born at Nantes in 1636, and died at Paris in 1690. He was a tax-collector—*Directeur-General des gabelles du Dauphiné et de Provence.* Boileau says of him, "*Le Pays sans mentir est un buffon plaisant;*" and this

---

[1] *Histoire de la Vallée et du Prieuré de Chamounix du X*^{e} *u XVIII*^{e} *siècle.* Chambery, 1887, 8vo.



THE GLACIER OF FAUCIGNY.

[*To face p.* 82.

estimate of his character is supported by the independent testimony of anecdotes. When, for example, he was called upon to give an account of his stewardship, and explain certain irregularities in the keeping of his books, he replied that he was "too brilliant a man—*trop bel esprit*—to occupy himself with book-keeping and financial calculations." Consequently he fell into disgrace, and found himself left with more leisure than ever to pursue his literary occupations.

His one literary achievement which concerns us here is a letter, composed in the mediæval language of gallantry, addressed to an unknown lady, and dated "Chamony en Fossigny le 16 May, 1669." What took Monsieur Le Pays to Chamonix we cannot tell. He speaks of "business occupations," but he does not seem to have been attending to them, and, in any case, he cannot have been engaged in tax-collecting, as Chamonix would have been outside his sphere of usefulness in this respect. His observations on the glaciers are as follows:—

"To MADAME . . .

"*A quaint picture of certain mountains in Savoy.*

"LETTER II.

"FROM CHAMONY EN FOSSIGNY,
"THE 16 MAY, 1669.

"I confess, Madame, that I have not done what I promised you that I would do, although I have found excellent opportunities of keeping my word. In the state of despair in which you had thrown me, when I parted from you, I had vowed that I would hurl myself from the first convenient precipice. Nevertheless, for the space of a fortnight, I have been ascending and descending the most dangerous mountains of Savoy, and have passed along the edges of a thousand precipices, and yet up to the present I have not thrown myself over them. I could easily tell you that my business occupations prevented me from thinking of it; but I must not deceive you. The pleasure of seeing your likeness in this frightful country has always restrained me whenever I have had the thought of fulfilling my promise. I could not make up my mind to die in places where, whenever I choose, I can see this pleasing portrait of you. . . .

"You will doubtless have some difficulty in guessing what is the portrait of which I speak; you will go straight to some casket, and search to see whether I have stolen that miniature which you so often refused to give me. But you must know that I do not owe this pleasure to the art of painting; Nature herself is the craftswoman. In fine, Madame, I see here five mountains which resemble you as though each of them were your very self.

"Nay, do not laugh so. They are pictures which represent you far more faithfully than do the Judith and the Pallas in your cabinet. Five mountains, Madame, made of pure ice from head to foot; but of an ice that may be styled perpetual. One knows here, by tradition, that the ice has been ice since the creation of the world. Neither the fires of five or six thousand dog-stars, nor the waters of the universal Deluge, have had the power to melt it, save in certain few places where one finds crystals and precious stones. But, to speak truly, it is dangerous to seek them there. The inquisitive and the avaricious are often overwhelmed in summer beneath the ruin wrought by the snows falling from their place, and their parents say, for their consolation, that art could not make them a tomb so stately and so brilliant as that which they have received from Nature. For the rest, Madame, there is nothing in the world so magnificent as these mountains; when the rays of the sun fall upon them, the different surfaces which a quaint Nature has given to their ice flash back the light of this beautiful luminary in so many fashions that you seem to see a thousand suns of different colours.

"After that, can one find more faithful portraits of you? This perpetual ice which surrounds you, those jewels which would be found in you by any one who could melt the ice, this peril to which the rash adventurers who undertake the quest expose themselves, the death of so many who have ventured to undertake it, and finally those suns which shine in your eyes,—do not these things establish relations with the icy mountains, so exact that I am entitled to regard them as finished portraits of you? Nature has done five times for you what a famous sculptor wished to do once for Alexander. You are here depicted on five mountains, and that is glory for you incomparably greater than if Appelles or Praxiteles were to return to the world to engrave your image on copper, or to carve it in marble.

"To conclude, Madame, we have here such lifelike portraits of you that, in order to take vengeance on your cruelty in so often refusing me your miniature, I should like to have one of these mountains hung like a medal on my stock, or, if that cannot be, I should like to hang myself on to the mountain, so as to die attached to your portrait. None the less, however, if I must die of cold, I would rather that my death were caused by the ice of your heart than by the ice of the mountains. Wherefore, Madame, I am resolved to leave this frightful country as speedily as possible, in order to go and die at your feet. That is how I mean to keep my word with you. My death would not give full satisfaction to your cruelty if your eyes missed the joy of witnessing it."

Such is our first picturesque glimpse of the Valley of Chamonix and the Glaciers of Mont Blanc. In spite of his use of the abusive epithet "frightful," the writer is quite in advance of his times in his human attitude towards the frowning scenery. For a second picture we have to wait until 1744, in which year was published a pamphlet with the following title-page:—

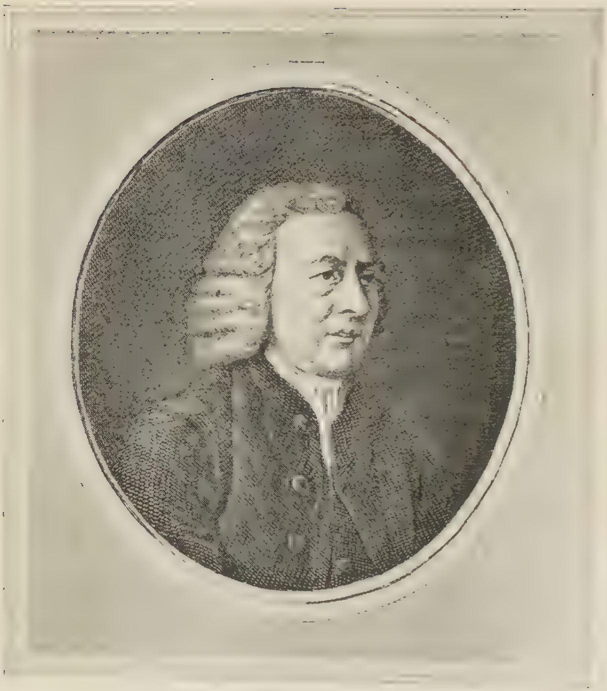
> "An Account of the GLACIERES or ICE ALPS in SAVOY, In Two Letters, one from an *English* Gentleman to his Friends at *Geneva,* The other from PETER MARTEL, Engineer to the said *English* Gentleman. Illustrated with a Map, and Two Views of the Place, etc. As laid before the Royal Society, LONDON, Printed for Peter Martel, and sold by *W. Meadows* in *Cornhill; P. Vaillant* in the *Strand; G. Hawkins* between the *Two Temple Gates; R. Dodsley* in *Pall Mall; J. Pallaret* against *Catherine Street* in the *Strand;* and *M. Cooper* in *Pater Noster Row. MDCCXLIV* (Price One Shilling and Six Pence)."

The "English Gentleman" here referred to was, as every one knows, Mr. William Windham, of Felbrigg in the county of Norfolk, the father of the William Windham who was the contemporary and colleague of Pitt. He was an athletic young man who subsequently, in London, earned the nickname of "Windham the boxer," and in 1741 he was the leading spirit of a small and select colony of Englishmen residing at Geneva. It appears, from official records which remain, that he organised some private theatricals which he formally invited the town councillors of Geneva to patronise, and also that he got into trouble for doing damage to the property of farmers when out shooting, for committing assault and battery, and for other acts of venial misconduct proper to a high-spirited young man.

It was in 1741 that Windham, who had been travelling through Europe under the tutelage of Mr. Benjamin Stillingfleet,[1] made his famous excursion. He had long

---

[1] Grandson of Edward Stillingfleet, Bishop of Worcester. His biographer tells us that he assisted in the composition of Windham's



BENJAMIN STILLINGFLEET.

[*To face p.* 87.

contemplated the journey, but had postponed it, as he tells us, in consequence of "the Difficulty of getting Company," when his path was smoothed for him by the arrival at Geneva of Dr. Pococke[1]—a clergyman who had travelled widely in the East, and, among other achievements, climbed Mount Ida, of which mountain he "conjectured" that it "is not so high as Mount Lebanon or the Alps." His advent inspired confidence, and the members of the "common-room," as Stillingfleet calls the English *coterie*, were ready to undertake the adventure. The party comprised Lord Haddington[2] and his brother, Mr. Baillie, Mr. Chetwynd,[3] Mr. Aldworth Neville, Mr. Price,[4] of Foxley, as well as Mr. Benjamin Stillingfleet, the grandson of the theologian, described by his biographer, the Rev. William Coxe, as Mr. Windham's "respectable preceptor."

The excursion made a noise, the echoes of which long reverberated. Mr. C. E. Mathews, in *The Annals of Mont Blanc*, quotes several writers—Reichard, Ebel, Michel Carrier, and Mrs. Starke—who believed that, if it had not been for Windham, Chamonix would never have been heard of. His journey had, at any rate, this importance, that the immediate result of it was a second trip, undertaken, in the August of the following year, after his return to England, by a Genevese party under the leadership of Peter Martel, who took with him the scientific instruments which Windham left behind, because neither he nor any of his friends knew how to use them.

---

narrative; which is likely enough, as Windham was little more than a boy, and his narrative is exceedingly well-written. A later diary of Windham's travels in France and Italy, recently printed in the *Antiquary*, is by no means so elegantly composed.

[1] Afterwards Bishop of Meath.

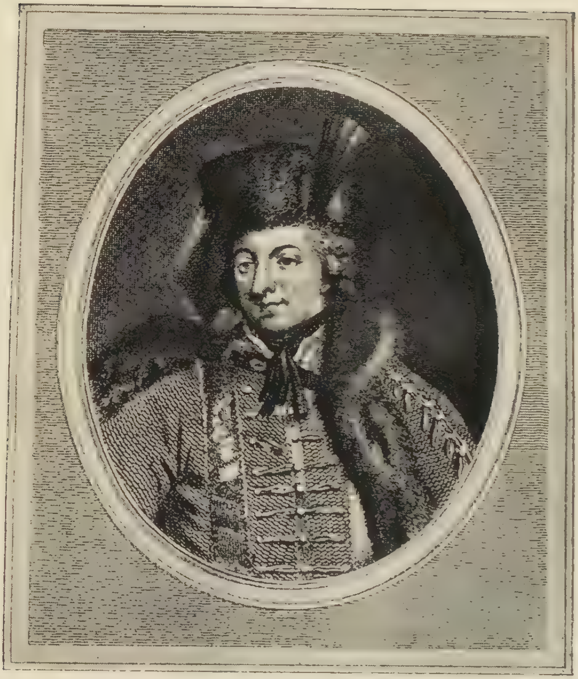
[2] Thomas Hamilton, seventh Earl of Haddington.

[3] Ancestor of the Barons Braybrooke.

[4] The view of the Mer de Glace which appears in the pamphlet is signed by him.

This Peter (or Pierre Guillaume) Martel was evidently a young man of bright intelligence. He was the son of a French refugee, and everything that is known of him is to his credit. On two separate occasions the Genevan municipality voted him gratuities "to encourage him": once because he had constructed an ingenious orrery, and once because he had made a useful plan of the fortifications of the city. In 1743 he came to London, where he maintained himself by means which are sufficiently indicated in the charming advertisement appended to the pamphlet in which his and Mr. Windham's adventures are recorded. The Geneva Library contains an atlas which includes fifteen ground-plans which he drew of various European towns. He did not make his fortune in London, however, but ultimately emigrated to Jamaica, where he died in 1761.

His and Windham's narratives are both reproduced in *fac simile* in Mr. Mathews' book, and that fact might have been made an excuse for omitting them here. On the theory, however, that iteration is preferable to incompleteness, it seems better to let them follow in the place reserved for them before *The Annals of Mont Blanc* appeared.



WILLIAM WINDHAM.

[*To face p.* 89.

CHAPTER XII.

Windham's Narrative.[1]

A Letter *from an English Gentleman to Mr.* Arlaud,[2] *a celebrated painter at* Geneva, *giving an Account of a journey to the* Glacieres, *or* Ice Alps *in* Savoy, *written in the year* 1741. *Translated from the* French.

Sir,—According to your desire I send you an Account of our Journey to the *Glacieres.* I shall give it you in the plainest Manner, without endeavouring to embellish it by any florid Descriptions, although the Beauty and Variety of the Situations and Prospects that we observed in this unfrequented Part of the World, would well deserve to be described by one who, like you, joins to so great a Skill in

---

[1] Both Windham's and Martel's letters were written in French, and an imperfect summary of their contents was sent to the *Journal Helvétique* of Neuchatel, in 1743, by M. Baulacre, librarian of Geneva, who excused himself from copying them in full on the ground that he was "rather lazy" and had no secretary of whose assistance he could avail himself. After this the MS. was lost sight of. Ultimately, however, a copy was found at the Library of the Institute at Paris, among the papers of one of the French Ministers at Geneva, and M. Théophile Dufour reprinted it in the *Echo des Alpes.* There was a *tirage-à-part* of the article, to which any one may refer who is curious to compare the French and English versions of the narratives. The divergencies between the two are fairly frequent, but of little importance, so that it seems sufficient to produce the one version here. Windham, it should be noted, did not write for publication.

[2] M. Arlaud (1668—1743) was a celebrated miniature painter. From 1688 to 1729 he was established in Paris, where he painted the portrait

Painting so lively and poetical an Imagination; but these not being my Talents, I will, as I said before, confine myself to the giving you a faithful Relation of the Incidents of our Journey, and acquainting you with the Observations we made. I shall add a few Hints, which may be useful to such as shall hereafter have the same Curiosity that we had, and who may perhaps have Advantages and Conveniences which we had not to make more accurate Observations. It is really Pity that so great a Curiosity, and which lies so near you, should be so little known; for though *Scheuchzer*, in his *Iter Alpinum*, describes the *Glacieres* that are in the Canton of *Berne*, yet they seem to me by his Description to be very different from those in Savoy.

I had long had a great Desire to make this Excursion, but the Difficulty of getting Company had made me defer it. Luckily in the Month of *June* last Dr. *Pococke* arrived at *Geneva* from his Voyages into the *Levant* and *Egypt*, which Countries he had visited with great Exactness. I mentioned to him this Curiosity, and my Desire to see it, and as he was far from fearing Hardships, expressing a like Inclination, we immediately agreed to go there; when some others of our Friends found a Party was made, they likewise came into it, and I was commissioned to provide what was necessary for our setting out.

As we were assured on all hands, that we should scarcely find any of the Necessaries of Life in these Parts, we took with us Sumpter Horses, loaded with Provisions, and a Tent, which was of some use to us, though the terrible

of the Duc d'Orleans, who said of him, "*Les peintres en ce genre n'ont fait jusqu' ici que des images; Arlaud les a appris à faire des portraits; sa miniature s'exprime aussi fortement que la peinture à l'huile.*" He was on terms of friendship with Sir Isaac Newton, who used to send him presentation copies of his books, and on his death he bequeathed his library to Geneva.

Description People had given us of the Country was much exaggerated. I had provided several Mathematical Instruments to take Heights, and make Observations with, hoping that Mr. *Williamson*, an able Mathematician, Governor to Lord *Hadinton*, would have been of the Party; but he declining it, on account of the Fatigue which he fear'd he should not be able to support, I chose not to take the Trouble of carrying them, there being no person in the Company so capable as he of making a proper use of them.

We set out from *Geneva* the 19th of *June*, N.S. We were Eight in Company besides five Servants, all of us well arm'd, and our Baggage-Horses attending us, so that we had very much the Air of a Caravan. The first Day we went no farther than *Bonneville*, a Town about four Leagues distant from *Geneva*, according to the way of reckoning there; these four Leagues took us more than six Hours' riding. This place is situated at the Foot of the *Maule*, and close by the River *Arve;* 'tis surrounded with beautiful Meadows and high Mountains, covered with Trees, which form altogether a very delightful Situation. There is a very good Stone-Bridge near the Town, but it had suffered in the late Inundation of the *Arve*, which had carried away part of it. Our Inn was a tolerable one for *Savoy* as to everything but Beds.

The next Day being the 20th, we set out very early in the Morning, and passed the *Arve;* our Road lay between that River and the Mountains, all along which we were entertained with an agreeable Variety of fine Landskips. They reckon two Leagues from *Bonneville* to *Cluse*, but we were three Hours and a half in going it.

Cluse is situated in a narrow pass between the Mountains, which almost meet in this Place (leaving only room for the *Arve*, which is thus hemm'd in for above a League together). Before you come to *Cluse* there is a kind of

Hermitage, upon a Rock on the Right Hand, where we climb'd up in order to enjoy the Prospect, which is *delicious;* after that we passed the *Arve* over a fine Stone Bridge, of one very large Arch, and continued our journey for about an Hour and a half through a narrow Road, along the *Arve*, between Rocks of a prodigious Height, which look'd as if they had been split on purpose to give the River a Passage. Not to mention the Beauty of the Views all along, we were extremely entertained by continual Echoes, and the prodigious rattling, caused by cracking a Whip, or firing a Pistol, which we repeated several Times. We saw Cascades on every Side, which fell from the Top of high Rocks into the *Arve*. There is one among the rest of singular Beauty, it is called the *Nan d'Arpena*, 'tis a great Torrent, which falls from a very high Rock; all the Company agreed it must be higher than *Salève*. As for my Part, I will not pretend to decide about it. I however may venture to say, that the Cascade of *Terni* does not fall from near so great a Height; but then the quantity of Water, when we saw it, was much less than at this last mentioned Place; tho' the People of the Country assured us, that at certain times the Water is much more abundant than it was then.

After about three Hours' riding from *Cluse*, we came to Saint *Martin's* Bridge, right against *Salanches*, which is on the other Side of the *Arve*. We did not care to go out of our Way into the Town; but chose rather to encamp in a fine Meadow near the Bridge, in order to refresh ourselves. From thence we set out again on our Journey, and after four Hours' riding through very bad Ways, being obliged to cross some dangerous Torrents, we arrived at a little Village called *Servoz*. Our Horses suffered here very much, being tied to Pickets all Night in the open Air for want of Stabling; besides, there was neither Oats, nor any other Forrage, but Grass fresh cut; as for ourselves, as we had brought all Necessaries along with us, we were well enough off, except as to Beds, and that want was supplied by clean Straw in a Barn.

From thence we set forward at break of Day, and passed the *Arve* once more over a very bad wooden Bridge, and after having climb'd over a steep Mountain, where we had no small Difficulty with our Horses, their Shoes coming off continually, and they often running the risque of tumbling into the *Arve*, which runs at the Bottom of the Rock, we came into a pleasant Valley, where we pass'd the *Arve* a fourth time over a Stone Bridge, and then first had a view of the *Glacieres*. We continued our Journey on to *Chamouny*, which is a Village upon the North-side of the *Arve*, in a Valley, where there is a Priory belonging to the Chapter of *Salanches*; here we encamp'd, and while our Dinner was preparing, we inquired of the People of the Place about the *Glacieres*. They shewed us at first the Ends of them which reach into the Valley, and were to be seen from the Village; these appear'd only like white Rocks, or rather like immense Icicles, made by Water running down the Mountain. This did not satisfy our curiosity, and we thought we were coming too far to be contented with so small a Matter; we therefore strictly inquired of the Peasants whether we could not by going up the Mountain discover something more worth our Notice. They told us we might, but the greatest Part of them represented the Thing as very difficult and laborious; they told us nobody ever went there but those whose Business it was to search for Crystal, or to shoot *Bouquetins* and *Chamois*, and that all the Travellers, who had been to the *Glacieres* hitherto, had been satisfied with what we had already seen.[1]

---

[1] Conclusive evidence, of course, that Windham did not, as used to be said, "discover" Chamonix. Mr. Mathews mentions a visit paid, in 1727, by a Prince of Sulzbach.

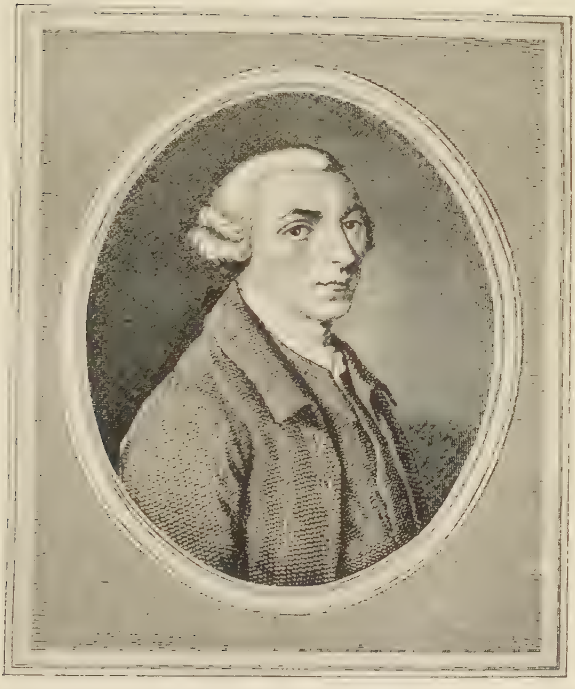
The Prior[1] of the Place was a good old Man, who shewed us many Civilities and endeavoured also to dissuade us; there were others who represented the Thing as mighty easy; but we perceived plainly, that they expected that after we had bargain'd with them to be our Guides, we should soon tire, and that they should earn their Money with little Trouble. However our Curiosity got the better of these Discouragements, and relying on our Strength and Resolution, we determined to attempt climbing the Mountain. We took with us several Peasants, some to be our Guides, and others to carry Wine and Provisions. These people were so much persuaded that we should never be able to go through with our Task, that they took with them Candles and Instruments to strike Fire, in case we should be overcome with Fatigue, and be obliged to spend the Night on the Mountain. In order to prevent those among us who were the most in Wind from fatiguing the rest, by pushing on too fast, we made the following Rules: That no one should go out of his Rank; that he who led the Way should go a slow and even Pace; That whoever found himself fatigued, or out of Breath, might call for a Halt; And lastly, that whenever we found a Spring we should drink some of our Wine, mixed with Water, and fill up the Bottles, we had emptied, with Water, to serve us at other Halts where we should find none. These Precautions were so useful to us, that, perhaps, had we not observed them, the Peasants would not have been deceived in their Conjectures.

We sat out about Noon, the 22nd of *June*, and crossed the *Arve* over a wooden Bridge. Most Maps place the *Glacieres* on the same side with *Chamoigny*,[2] but this is a Mistake. We were quickly at the Foot of the Mountain, and began to

---

[1] As Mr. Whymper points out in his *Chamonix Guide*, there was no Prior at that date, and Windham doubtless inferred a Prior from the Priory.

[2] This eccentricity of spelling is Windham's.



MR. PRICE OF FOXLEY.

[*To face p.* 94.

ascend by a very steep Path through a Wood of Firs and Larche Trees. We made many Halts to refresh ourselves, and take breath, but we kept on at a good Rate. After we had passed the Wood, we came to a kind of Meadow, full of large Stones, and Pieces of Rocks, that were broken off, and fallen down from the Mountain; the Ascent was so steep that we were obliged sometimes to cling to them with our Hands, and make use of Sticks, with sharp Irons at the End, to support ourselves. Our Road lay slantways, and we had several Places to cross where the *Avalanches* of Snow were fallen, and had made terrible Havock; there was nothing to be seen but Trees torn up by the Roots, and large Stones, which seemed to lie without any Support; every step we set, the Ground gave way, the Snow which was mixed with it made us slip, and had it not been for Staffs, and our Hands, we must many times have gone down the Precipice. We had an uninterrupted View quite to the Bottom of the Mountain, and the Steepness of the Descent, join'd to the Height where we were, made a View terrible enough to make most People's Heads turn. In short, after climbing with great Labour for four Hours and three-quarters, we got to the Top of the Mountain,[1] from whence we had the Pleasure of beholding objects of an extraordinary Nature. We were on the Top of a Mountain, which, as well as we could judge, was at least twice as high as Mount *Salève*, from thence we had a full View of the *Glacieres*. I own to you that I am extremely at a Loss how to give a right idea of it; as I know no one thing which I have ever seen that has the least Resemblance to it.

The Description which Travellers give of the Seas of *Greenland* seems to come the nearest to it. You must imagine your Lake put in Agitation by a strong Wind, and frozen all at once, perhaps even that would not produce the same Appearance.

---

[1] *I.e.* The Montanvert.

The *Glacieres* consist of three large Valleys, that form a kind of Y, the Tail reaches into the *Val d'Aoste*, and the two Horns into the Valley of *Chamoigny*, the Place where we ascended was between them, from whence we saw plainly the Valley, which forms one of these Horns.

I had unluckily left at *Chamoigny* a pocket Compass, which I had carried with me, so that I could not well tell the Bearings as to its Situation; but I believe it to be pretty nearly from North to South. These Valleys, although at the Top of a high Mountain, are surrounded with other Mountains; the Tops of which being naked and craggy Rocks, shoot up immensely high; something resembling old *Gothic* Buildings or Ruines, nothing grows upon them, they are all the Year round covered with Snow; and our Guides assured us, that neither the *Chamois*, or any Birds, ever went so high as the Top of them.

Those who search after Crystal, go in the Month of *August* to the Foot of these Rocks, and strike against them with Pick-axes; if they hear them resound as if they were hollow, they work there, and opening the Rock, they find caverns full of Crystalisations. We should have been very glad to have gone there, but the Season was not enough advanced, the Snow not being yet sufficiently melted. As far as our Eye-sight could reach, we saw nothing but this Valley; the Height of the Rocks, which surrounded it, made it impossible for the Eye to judge exactly how wide it was; but I imagine it must be near three-quarters of a League. Our Curiosity did not stop here, we were resolved to go down upon the Ice; we had about four hundred Yards to go down, the Descent was excessively steep, and all of a dry crumbling Earth, mixt with Gravel, and little loose Stones, which afforded us no firm footing; so that we went down partly falling, and partly sliding on our Hands and Knees. At length we got upon the Ice, where our Difficulty ceased, for that was extremely rough, and afforded us good footing; we found in it an infinite Number of Cracks, some we could step over, others were several Feet wide. These Cracks were so deep, that we could not even see the Bottom; those who go in search of Crystal are often lost in them, but their Bodies are generally found again after some Days, perfectly well preserved. All our Guides assured us, that these Cracks change continually, and that the whole *Glaciere* has a Kind of Motion. In going up the Mountain we often heard something like a Clap of Thunder, which, as we were informed by our Guides, was caused by fresh Cracks then making; but as there were none made while we were upon the Ice, we could not determine whether it was that, or *Avalanches* of Snows, or perhaps Rocks falling; though since Travellers observe, that in *Greenland* the Ice cracks with a Noise that resembles Thunder, it might very well be what our Guides told us. As in all Countries of Ignorance People are extremely superstitious, they told us many strange Stories of Witches, Etc. who came to play their Pranks upon the *Glacieres*, and dance to the Sound of Instruments. We should have been surprised if we had not been entertained in these Parts, with some such idle Legends. The *Bouquetins* go in Herds often to the Number of fifteen or sixteen upon the Ice, we saw none of them; there were some *Chamois* which we shot at, but at too great a Distance to do any Execution.

There is Water continually issuing out of the *Glacieres*, which the People look on as so very wholesome, that they say it may be drank of in any Quantities without Danger, even when one is hot with Exercise.

The Sun shone very hot, and the Reverberation of the Ice, and circumjacent Rocks, caused a great deal of thaw'd Water to lie in all the Cavities of the Ice; but I fancy it freezes there constantly as soon as Night comes on.

Our Guides assured us, that, in the time of their Fathers, the *Glaciere* was but small, and that there was even a

Passage thro' these Valleys, by which they could go into the *Val d'Aoste* in six Hours: But that the *Glaciere* was so much increased, that the Passage was then quite stopped up, and that it went on increasing every Year.

We found on the Edge of the Glaciere several Pieces of Ice, which we took at first for Rocks, being as big as a House; these were pieces quite separate from the *Glaciere*. It is difficult to conceive how they came to be formed there.

Having remained about half an Hour upon the *Glaciere*, and having drank there in Ceremony Admiral *Vernon's*[1] Health, and Success to the *British* Arms, we climb'd to the Summit, from whence we came, with incredible Difficulty, the Earth giving way at every step we set. From thence, after having rested ourselves a few Minutes, we began to descend, and arrived at *Chamouny* just about Sun-set, to the great Astonishment of all the People of the Place, and even of our Guides, who owned to us they thought we should not have gone through with our Undertaking.

Our Curiosity being fully satisfied, we left *Chamouny* the next Day, and lying at *Salanches*, we got the 23rd to *Bonneville*. The Nearness of this Place to the *Maule*[2] raised in us an Inclination to go up it. We set about this Task the next Day early in the Morning; we fancied that after the *Glacieres* every Mountain would be easy to us, however, it took us more than five Hours' hard labour in getting up; the Ascent being extremely steep; though after two-thirds of the Way, there is a fine green Turf quite up to the Top, which ends in a Point, the Mountain being like a Sugar Loaf on one Side, and quite perpendicular on that Part which lies farthest from *Geneva*. From this Point there is a most delightful View, on one Side, upon the Lake, *Geneva*, and the adjacent Parts; on the other, upon high Mountains cover'd with Snow, which rise around, in form of an Amphitheatre, and make a most Picturesque Prospect. After having stay'd some time here, we returned back, and went on to *Annecy*, where we lay, from whence the next Day we got to *Geneva*.

---

[1] Admiral Vernon (1684—1757) was the capturer of Porto Bello. His unsuccessful attack, in 1741, on Carthagena is described in *Roderick Random*, Smollett having been with the Admiral in the capacity of Surgeon. In 1745 he was struck off the active list for superseding the orders of the Lords of the Admiralty..

[2] "The Môle (6,130 ft.), which commands a fine view of the valley of the Arve and of Mont Blanc, may be ascended in four and a half hours. Riding is practicable to within one hour of the summit." *Baedeker*. It was climbed by Sir George Shuckburgh in 1773. He describes it as "a convenient insulated mountain"; but he nearly lost his way on it in a fog, and getting to the top, nearly fell off on the other side. See his *Observations Made in Savoy*, London, 1777, 4to.

Those who are desirous to undertake this Journey, ought not to set out till towards the Middle of *August;* they would at that time find not so much Snow on the Mountain. They might go to the Crystal Mines, and divert themselves with shooting of *Bouquetins;* the Oats would then be cut, and their horses would not suffer so much. Although we met with nothing which had the Appearance of Danger, nevertheless I would recommend going well armed; 'tis an easy Precaution, and on certain occasions very useful, one is never the worse for it, and oftentimes it helps a Man out of a Scrape. Barometers to measure the Height of the Mountains, portable Thermometers, and a Quadrant to take Heights with, would be useful, if there were a Mathematician in Company. A Tent would not be necessary, unless for those who had a Mind to examine everything with the greatest Exactness, and make Observations; in this Case one might pitch it upon the Mountain, and pass the Night in it, if it were necessary, for it did not seem very cold there.

With these Precautions one might go through the other Parts of these Valleys, which form the Y, and one might find out whether the Cracks change daily as we were told; one might also measure those excessive high Rocks which are on the Side of the *Glaciere*, and make many other curious Observations, according to the Taste and Genius of the Travellers ; who, if they were inclined to Botany, might find an ample Field of Amusement.

One who understood Drawing might find wherewithal to employ himself, either on the Road, or in the Place itself ; in short, a Man of Genius might do many things which we have not done. All the Merit we can pretend to is having opened the way to others who may have Curiosity of the same Kind.

It would be right to take Victuals ready dress'd, and Salt Meat, Bread and Wine, for there are some Places where one can get no Provisions, and the little there is to be had in other Places is very bad. We bought a Sheep, which we Killed, and dressed upon the Spot.

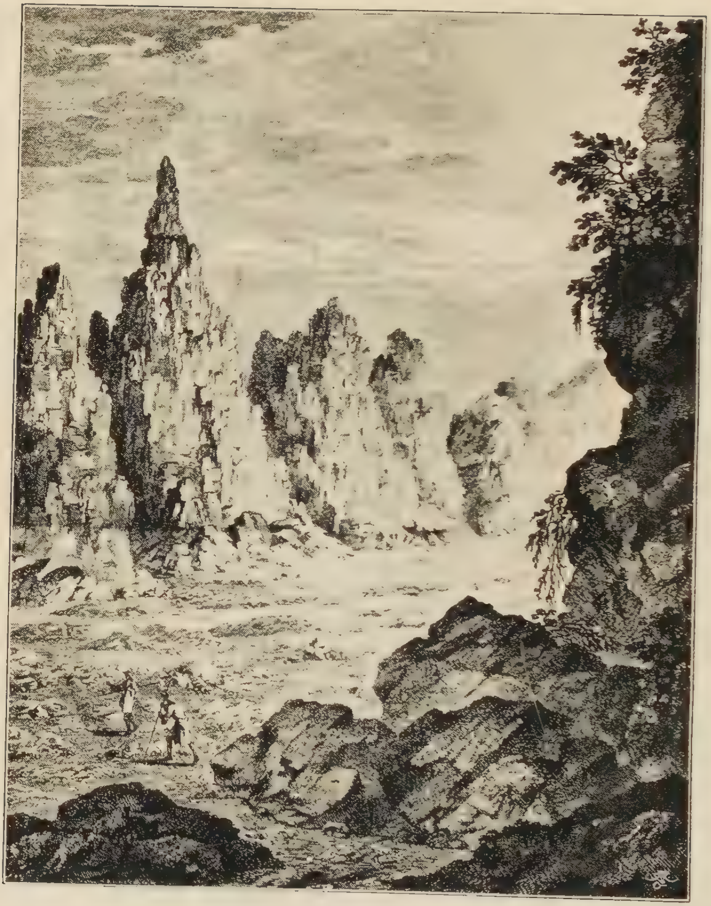
It is necessary to carry Halters to tie the Horses, cut Shoes, Nails, Hammer, Etc., for they lose their Shoes continually in those stoney Roads.

With such Precautions all kinds of Journeys become easy and agreeable, even in the most desart Countries, and one is then more in a condition to observe with Care and Accuracy, whatever occurs worth Notice.

This is the Substance, Sir, of what I can recollect of our Journey. My having so long defer'd giving you this Account is owing to the Incapacity I found in myself to say any thing worth being presented to a Person of so good a Taste as yourself. However, upon the whole, 'tis your good Taste which ought to encourage me : Your lively and penetrating Imagination, which unites in one, both the Poet and Painter, will at once lay hold and perfect what I have but slightly sketched. I am, with the greatest Esteem,

Sir,

Your most Obedient Humble Servant.



OLD VIEW OF THE MER DE GLACE.

[*To face p.* 101.

CHAPTER XIII.

Martel's Narrative.

An Account *of a Journey to the* Glacieres *in* Savoy, *in a* Letter *addressed to the* English *Gentleman, Author of the Foregoing Letter, by* P. Martel, *Engineer. Translated from the* French.

Sir,—

Since your Departure for *England* I have had an Opportunity of going to the *Glacieres* of *Chamouny* along with four Friends, whose Curiosity had been raised by reading your Letter, which has been liked by all People of Taste, and resolved to endeavour to make those Observations which you was desirous to have made last Year. I therefore took with me every thing that appeared necessary for that Purpose, and made use of all possible Precautions to succeed, in the Manner you will see.

I do not present this Account to you, Sir, as a work fit to be compared with yours, but rather as a Memorial, which will serve to supply your Journal with what you would have chosen to have put there, and which you certainly would have inserted yourself had you had instruments with you.

You will first of all see what Instruments I provided, and what Precautions I took; you will see also a Journal of my Observations, to which I shall add an exact Account of what we saw. I shall endeavour to explain the Physical Cause which supplies the *Glacieres*. I shall put at the End of this Relation a View of the Valley of *Chamouny*, taken from the Church; a View of the Valley of Ice, taken from *Montanvêr*, a Map of the Road from *Geneva* to the Source of the *Arve*, rectified from Observations made upon the Places; and some Designs of *Chamois* and *Bouquetins*, which you may perhaps like to shew to your friends in *England*. I shall join the Observations of one of my Friends, and Fellow Travellers, upon the Plants which we found both upon the Mountain, and in the neighbouring Places. Lastly, I shall compare our Observations and Mensurations with those of the celebrated Mr. *Fatio de Duillier*,[1] which are inserted in the Appendix to the History of *Geneva*. Be assured, Sir, that this Relation is very exact, all the Operations have been repeated, and calculated twice with great Care, so that you may rely on the exactness of every thing contained in this Account. Before I come to the Point, it may be proper to tell you who were the People that composed our Company. There was a Goldsmith[2] very well skilled in Minerals; an Apothecary,[3] who was a good Chemist and Botanist; Monsieur *Martin*[4] and

---

[1] M. Fatio de Duillier became a member of the Royal Society in 1706. To Spon's *History of Geneva*, published in 1730, he contributed a chapter on the Natural History of the Lake of Geneva. The gist of his Mensurations, to which Martel refers, is contained in the following sentence:—

"*Ensuite le calcul a donné la hauteur de la Montagne maudite, par-dessus le Niveau de la surface du Lac pours le moins de* 2,000 *Toises de France.*"

This calculation was, of course, effected by trigonometry, the base being *dès une station en Mauchamp . . . jusqu' à l'Eglise de Saint Pierre à Genève.* M. Fatio de Duillier adds:—

"*Cette montagne paroit toujours blanche, et les glaces qui en couvrent toute la partie supérieure ne se fondent en ètè que par leurs bords les plus abaissez.*"

His conclusion is that the Montagne Maudite is probably the highest mountain in Europe.

[2] The goldsmith was Etienne Chevalier, who married the sister of a London clergyman.

[3] The apothecary cannot be identified.

[4] In the French version of the story M. Martin is described as an artist. By calling, however, he was a cutler.

Mr. *Girod*,[1] whom you know to be very curious; which made us a Company pretty well qualified for this Undertaking, especially as each of them, according to his particular Turn, contributed to discover Something, and besides that were very Serviceable to me in making my Observations.

I took with me a good Barometer, included in a wooden Tube, which I filled at every Station, according to the Method of *Torricelli*, with all possible Precaution; and for this Purpose carried a good deal of Mercury to be always provided in Case of Accidents: I had with me my Semicircle of ten *English* Inches Radius, with some Sea Compasses, a Camera-Obscura, and all implements for Drawing. I took also a Thermometer of my own make, filled with Mercury, divided into a hundred equal Parts, from the freezing Point to boiling Water, answering to 180 Parts of *Farenheit's* Thermometer, beginning at 32, and ending at 212. I divided my Barometer into Inches and Lines, *French* Measure, to have at once the Height of the Mercury. I left at *Geneva* with Baron *Rotberg* a Barometer and Thermometer, similar to those I took along with me; that I might compare our Experiments, with the Variations of the Barometer, in case the Weather had Varied, but the Weather being all the Time fine, the changes were not sensible; your Journal served us as a Guide, both for our Rout, and for several Precautions you mention as necessary.

I must observe to you that before our Departure, I waited on Professor *Calandrini*,[2] to get some farther Instructions, concerning the Proportion of the Height of the Mercury at different Distances from the Center of the Earth. He communicated to me a Canon to make a Table by, for that Purpose, but I preferred the fundamental Experiments, and the Tables of Mr. *Scheuchzer*, for Reasons which may be seen in the Philosophical Transactions, No. 405.[1] You will find here all the Heights of the Mountains exactly calculated by those Tables, according to the Height the Barometer stood at, and I found them agree more exactly than any other with my Trigometrical Operations.

---

[1] Pierre Gizod, Grocer.

[2] Jean Louis Calandrini (1703—1758) had been Professor of Mathematics and was then Professor of Philosophy at the Geneva University. He contributed to Sir Isaac Newton's *Principia* a *Nota de calculo œquationum planetarum.*

We left *Geneva Aug.* 20, 1742. Before we set out I tried my Barometer, which upon the side of the *Rhone* stood at 27 Inches $\frac{2}{12}$; and the Thermometer at 18 D. above the freezing Point, which answers to 60. of *Farenheit*. We dined at *Bonneville*, where the Barometer was at $26\frac{8}{12}$; which makes 6 Lines less than at the side of the *Rhone* at *Geneva;* thus it appears that the *Arve* is at *Bonneville*, above the Level of the *Rhone*, 403 F. 10 l. 5 L. *French* Measure; which is not a very great Rise, considering the distance is 5 Leagues, or 15 Miles *English.*

We left Bonneville at half an Hour after two, and reached *Cluse* about six, and got to *Salanches* that Night. We made several Trials of the Echoes, which you mention in the Valley between these two Places, and found they continued full four Minutes. The great Drought had intirely stopped the fine Cascade you mention, at the *Nan Darpena.* At *Salanches* I tried my Barometer, which was at $26\frac{4}{12}$, which was ten Lines less than at *Geneva*, and gave us in Height 670 F. 10 l. 0 L. above the *Rhone.* The Thermometer was not changed at all. Going from *Salanches* to *Servoz* we went through *Passi*, a Village situated almost at the Foot of a Mountain of the same Name. This Parish contains several Hamlets, which extend near three Leagues; *Passi* is on the right side of the *Arve* going down the Stream, and on the other Side is situated the village of St. *Gervais*, near four Miles beyond the last Hamlet of *Passi*. Leaving St. *Gervais* we began to climb the Mountain and passed over a little Bridge, under which runs a Water called la *Gouille*, which falls from the Mountain, and carries with it a very black Sand; nevertheless near the Bridge there is a little Pond at the Bottom of a Hill, where this Water is vastly clear and beautiful. Not far from thence there is a Water which is called the *Nan des bois*: This too carries along with it a black Sand, which the Inhabitants say is blacker the more abundant the Water is: From thence we arrived at *Servoz*, on the right Side of the *Arve* in a very narrow Valley, from whence we began to discover the high Mountains which surround the *Glacieres*, the Barometer stood at l. $25\frac{7}{12}$, which is l. $1\frac{7}{12}$ lower than at the *Rhone*, and gave for Height F. 1306. 0. 7., and from *Salanches*, the Difference of l. $\frac{9}{12}$, which is F. 636. 0. 1. in five Leagues; this being the greatest Declivity that the *Arve* has from its first Source: For here it rolls from Mountain to Mountain till it comes to the Plain of *Passi*. At *Servoz* they shew'd us Lead-Ore, which to me seem'd to be of little value; they assured us that this Valley of *Servoz* was formerly a Lake. There is still remaining an old Tower, at a small Distance from the *Arve*, which they call the *Tower of the Lake*. They add moreover, that on the Side of this Lake, there was a Town called the City of *St. Peter*, which was swallowed up, and that the Lake having broke thro' its Banks, run all out into the *Arve*, and there remains only now a marshy Valley.

---

[1] This is a paper on the Barometrical Method of Measuring the Height of Mountains, written by Mr. John James Scheuchzer, the son of the more celebrated philosopher of the same name, whose Alpine experiences were recorded in a previous chapter.

From *Servoz* we took the Rout of *Chamouny*, we had the *Arve* on our right Hand, but soon passed it over a very bad Bridge, called *Pont Pellissier*; from whence we came to that steep Mountain which they call *les Montées*, or the Stairs, where one of our Horses left a Shoe and almost all his Hoof: from thence we entered into the Valley of *Chamouny*, having on our left the *Arve*, and on our Right a fine Hill, which reaches as far Southward as the Mountain called *Mont blanc*.[1] Here we found several signs of Iron Ore, at least they no ways differed from those by which they find out Iron Mines in *Burgundy*. A League farther we came to the Village of *Fouilly*, which is only a Hamlet of *Chamouny*, and from thence we arrived at *Moncoir*, where there is a Church belonging to *Chamouny*; and from thence passing the *Arve*, over a Bridge, we arrived at *Chamouny* in the Evening. Here I tried the Barometer, which at the side of the *Arve* stood at 25 F. $\frac{4}{12}$, which is 1 l. $\frac{10}{12}$ lower than at *Geneva*; from whence I concluded that the *Arve* at this Place was above the Level of the Lake, 1520 F. 5. 5. The night between the 22nd and 23rd I hung out my Thermometer in the Open Air, and found it in the Morning two Degrees above the freezing Point, which answers to $35\frac{1}{2}$ Degrees of *Farenheit*. This made us cloath ourselves warmer, in order to go up the Mountain; for which Place we set out about six in the Morning, having with us seven Men, both to assist us in climbing, and to carry Provisions; we took in other Respects the same Precautions as you did, and I carried my Instruments with me. At a Halt which we made after three Hours' climbing, I tried my Barometer, which gave me 1 l. $\frac{4}{12}$ lower than at *Chamouny*, and by the Table, I found that we had mounted 1179 F. 0. 1. from the *Arve* at *Chamouny*; after two Hours and half more very difficult climbing, we got on the Top of the Mountain called *Montanver*; from whence we saw the Ice Valley, and were struck with Astonishment at so extraordinary a Sight. After having taken a View of it while we rested, I tried the Barometer, which stood at $22\frac{8}{12}$, which was $2\frac{8}{12}$ less than at *Chamouny*, which gives for the Height of the Mountain 2427 F. 8. 10. and above the Level of the Lake F. 3947. 2. 3.

---

[1] The earliest mention of Mont Blanc that has been found. Previously it has only been known vaguely, at Geneva, as the Accursed Mountain.

In order to find a Place to Dine in we descended towards the Ice, and got behind a kind of Mound of great Stones which the Ice had raised, as I will explain hereafter. The Barometer rose two Lines, which shewed us we had gone down F. 159. 7. 8. in this Place we dressed our Victuals, and dined under the Shade of a great Rock. The Thermometer was got down to only one Degree above freezing Point, which answers to about $33\frac{1}{2}$ of Farenheit. We were not able to stay here long by reason of the Cold, which obliged us to get into the Sunshine, altho' we were dressed as in the Middle of Winter; and after Dinner every one went according to his Inclinations, some upon the Ice, others to look for Crystals, for my Part I took two Men with me and returned to *Montanvert*, where I remained near three Hours, which time I employed in making a Plan of the *Glacieres*, which I put at the End of this Account. I was assisted in this Operation by my Guide, who was a very intelligent Person, not only knowing the Country, but having also assisted in the last Survey, which the King of *Sardinia* had caused to be made of *Savoy*. I have more reason to believe this Map to be exact, because I have compared it with a Map that I saw at the *Greffier's* of *Chamouny*, which was of great Service to me. The Nearness and Height of the Mountains rendered it impossible to make use of my *Camera Obscura*, to take a Prospect of the *Glacieres*, so that leaving *Montanvert*, I arrived at the Priory of *Chamouny* at Seven in the Evening.

My Companions were next Morning in so great a hurry to go away, that I had not time to draw any Views as I intended; all I could do was to take with my Semicircle the Height of the Mont Blanc, by two different Operations which corresponded exactly. I did the same for the *Montanvert*, where we had been the Day before, and just sketched out the View of *Chamouny*, here annexed, taken from above the Church, from whence I could see the Mountain where the *Arve* takes its Source, the chief Outlets of the *Glaciere;* the highest Mountains; and the Villages, as you will see in Plate 3.

I shall here interrupt my Narration to give you a more distinct Idea of the Valley of *Chamouny*, the *Glacieres*, and whatever seemed to me most remarkable during the short time which I remained there. First of all then, the Valley of *Chamouny* may be considered as reaching from the Top of the Mountain called the *Montées*, as far as the Mountain, from whence the *Arve* takes its Source, which is called the *Col de Balme*, which bounds it to the N.E. The Maps give this Valley the Form of a Crescent, but if it were so it ought to be narrow at the Ends and wide in the Middle; but it is on the contrary rather narrowest in the Middle; however it must be owned that it bends considerably. At the Entrance into it from *Serroz* it runs from West to East, and afterwards to N.E., so that it forms an Elbow about the Middle.

The length of this valley is about eighteen *English* Miles; as for its width, at least in the Middle, it cannot be above 400 Geometrical Paces, or about half an *English* Mile. It contains several Hamlets, the four principal ones are, *Fouilly*, just as you come into it; *Montcoir*, where there is a Church on the Left of the *Arve;* the Priory, which is in the Middle, properly called *Chamouny*, and is on the right Side of the River; and *Argentiere*, near the End of the Valley. This Valley is bounded on the N.E. by the *Col de Balme*, where the *Arve* rises from two Springs, at a very little Distance from one another; having the *Glacieres* to the S.E. all along the Valley, which reach as far as above St. *Gervais* in the Valley of *Salanches*, where there is a *Glaciere*, called *Glaciere de St. Gervais*, which comes from

Mont Blanc, bending a little towards the South, and not following the Curve of the Valley.

The N.W. Side is bounded by the Mountains of *Valorsine*, and the S.W. by the Passage which goes to *Serroz*. The *Arve* runs quite through the Middle of the Valley, receiving in its Passage the *Arbairon*, and many other Rivulets and Torrents, which only have Water when the Snows melt. To have a distinct idea of the *Glacieres* you must suppose a great Valley, nearly parallel to that of *Chamouny*, but much higher, it being situated on the Top of high Mountains. This Valley may be about twelve Miles long, and about two broad; a great Part of it may be seen from *Montanvert*, which is the Mountain we went up. From thence you see many Points of Mountains, shooting up to a prodigious Height, altho' the Place on which we were is near F. 2427. 8. *Paris* Measure high above the Valley, the Barometer being lower by $2\frac{8}{12}$ Lines at the Top of it than at the Bottom, and having calculated the Height of this Mountain, by a trigonometrical Operation, upon a Base of 1440 Feet, I found nine Feet more, and this by two different Operations. Having from the same Base measured the Height of the highest Point of the *Mont Blanc*, I found by two Operations 10939, taking in the Height of the Mountain where we were, and from the *Rhone* 12159 Feet. Most of these Points are all covered with Ice, from the Top quite to their Bottoms, which join the *Glacieres* of each Side.

I can think of nothing more proper to give an Idea of this Valley than the Comparison you have made use of, namely, a great Lake, which, being violently agitated by a strong Wind, should have been frozen all at once. For all the *Glaciere* when seen from *Montanvert* has at first that Appearance; but as soon as you come near it, you perceive that some of the Inequality or Waves are more than forty Feet high.

This great Valley has many Outlets between the Mountains, five of which, being the principal ones, come into the Valley of *Chamouny*, and these Extremities, or Outlets, are what the Inhabitants of *Chamouny* call *Glacieres*. These Outlets are very steep, some more so than others. Now to judge of the Cause, which occasions a perpetual Ice in this Valley, we must consider its Situation in two Respects; *First*, As to the sun; and *Secondly*, As to the Atmosphere. We must consider its greatest Length as lying from the Sunrising in the Summer Solstice, to the Sunsetting in the Equinox, by reason of its Curvity, being of all Sides surrounded with very high Mountains, and that chiefly on the South Side, where there is the Mountain *des Eschaux*, which is very high. The North Side of this Mountain is always covered with Ice, while the Mountain which is opposite to it on the other Side of the *Glaciere*, has no ice at all on it. As to the Atmosphere, you must remember that the Surface of the Ice is raised above the Valley of *Chamouny* 2262 Feet. This Great Height causes the Air to be always very cold in this Valley of Ice, of which I will add some incontestable Proofs. We were there in the Month of *August*, in very fine dry Weather, without any Appearance of Rain, nor was there any Wind stirring all the Day we were upon the Mountain, but always a clear Sunshine; nevertheless my Thermometer descended to two Degrees above the freezing Point, which answers nearly to 35⅔ of *Farenheit;* and this in the Valley of *Chamouny*, where the Air is not near so piercing as it must necessarily be on the Ice Valley, where the Thermometer sunk one whole Degree under the Rock where we dined, besides when we set out from *Chamouny* in the Morning, we passed dryshod over the Beds of many little Streams, which descended in the Day-time from the Mountains, and which ran abundantly at our Return in the Evening; so that we were forced to go over the Foot Bridges. *Thirdly*, We saw upon the Valley of Ice a vast Number of little Reservoirs, containing a very fine Water, which immediately congeals after Sunset; and that in the Greatest Heats, as all the Inhabitants of the Country assured me unanimously, not having remained late enough on the Mountain to have seen it myself. But this Observation is confirmed by the little Rivulets above mentioned, which cease running in the Night. If one considers the Height of these Mountains, which I have already mentioned, whose Tops lose themselves in the Clouds; if one considers the Vast Quantities of Water, which must come from them by the melting of the Snow that covers them upon the least Rains that happen in the Plain, and that this Water and Snow turn into Ice immediately at Sunset, it is easy to discover the Cause which fills these Valleys with Ice. These reasons, in my Opinion, are sufficient, without having recourse to the Effects of Nitre; nor indeed have we found any Appearance of it in the Taste of the Ice: And I may add, that, having put some of the Water into a Silver Spoon, and made it evaporate by Fire, it left neither Sediment, or any Films, nor any Marks of Nitre; So that I am firmly persuaded, that Nitre has no Share in the Production, or the Conservation of this Ice. For Ice, produced by an artificial Congelation, has an acrimonious Taste, whereas this produces a sweet Water, equal to that of our best Springs. The Glacieres in the Ice Valley are not always in the same State, they sometimes augment, and sometimes diminish; it is probable they have been more abundant; by the Marks which remain they must have been 80 feet higher than they are now. One sees on both Sides of the *Glacieres*, and in the Outlets, a white Stone, mixed with a white Sand, very like the Rubbish of old Buildings. The Stone appears calcin'd, and breaks like Lime that has been exposed some time to the Air; the Edges of the *Glacieres* are very steep, probably because the Ice rises against the Bank. The Place where we dined was a Kind of large Parapet of Stone-work, the

Stones of which were very large, and heaped one a Top of the other like a Wall, being very steep towards the Ice, with very little or no slope. This kind of Wall was about 80 Feet high and 20 thick; behind it was a kind of a Terras which joined the Mountain, from whence we could not see the Ice without getting on the Parapet. It is to be observed, that the *Glaciere* is not level, and all the Ice has a Motion from the higher Parts towards the lower; that is to say, that it Slides Continually towards the Outlets into the Valley, which has been remarked by many Circumstances. *First*, By great Stones, which have been carried quite into the Valley of *Chamouny;* they shewed us one of a very large Size, which several old People assured us, that they had seen upon the Ice. I have already said, that the Waves, for so I call the Inequalities of the Ice, were some of them 40 Feet high. I will now add that the Hollows between them run all transversely to the Course of the Ice; So that in the Valley they lay one way, and in the Outlets another, always crossing the Direction of the Ice: The Cavities between the small Waves are all full of a very clear Water; there are on the Ice an infinite Number of Clefts, of different Widths, some twenty Feet long, and four or five wide, others less. These are almost all in the weak Parts of the Ice, *i.e.*, in the Hollows of the Waves, and all directed like the Waves in a transverse, or oblique Manner. 'Tis by these Clefts we could judge of the Thickness of the Ice; in the Hollows it is only 5 or 6 Feet thick, in the high Waves 40 or 50. The Reflection of the Light in these Clefts produces the Effect of a Prism; and 'tis very beautiful, even from the Mountain, to see the Mixtures of blue and green arising from these Clefts, and the Reservoirs of Water, especially when the Sun shines on this vast Valley of Ice. By these same Clefts you see under the Ice, Waters which run from it, at least in the Day-time, which sometimes must touch the inferior

Surface of the Ice, as they did then, of which I shall give two Proofs, which appear incontestable. *First*, our Guides pushed a Pole a great way in, and having let it go, it rose again of itself, which could be occasioned by nothing but the Water. The other Proof is, that when any have had the Misfortune to fall into these Clefts, which has happened to some Searchers of Crystal, they have been found again upon the Ice, perfectly preserved after a few Days, as soon as there has been a little Rain, or mild Weather. The Cause of this can only be the Increase of the Water, which, not finding a sufficient Passage under the Ice, rises by these Clefts, and so gets rid of everything that is lighter than itself: But because the Passage for so large a Quantity of Water is not sufficient, though the Number of Clefts be very great, it is very probable that it often raises the whole Mass of Ice. One might draw from this many Conjectures, both for discovering the Cause of the Increase of the *Glacieres*, during the Time of the greatest Heats, and also to explain the Elevation of the Stones on the Edges.

I have already said, that the thickness of the Ice is very considerable, and I will now say something upon its Consistence. We found it generally much lighter, and much thinner towards the Edges of the Valley than in the Middle: For although both the one and the other swim upon the Water, yet that in the Middle sinks the deepest. I observed before that the Mountains or Points, which we saw from the Mountain which we went up, are very high, and there are many of them. I particularly mentioned three of the principal of them, namely, one towards the South and two towards the West. That which is towards the South, and which we first discovered before us is called *L'Eguille du Dru;* this Point looks very like an Obelisk, the Top of which is lost in the Clouds, making a very acute Angle at the Summit, and not much unlike a great Gothic Tower, built of white and brown Stone, the parts of which are very rough. For we must observe, that the Pieces which fall off break in a perpendicular Direction, having here and there little Parts by themselves, which make the Mountain look as if it was composed of an infinite Number of little Towers. The Effect of this is very beautiful when the Sun shines on them, by reason of the agreeable Mixture of *Clair Obscur*, which is prodigiously varied: This Mountain is too steep to have any Ice upon it; or indeed much Snow. The two other Points on the West Side are *L'Eguille du Montmallet*,[1] which is covered always with Ice and is the nearest the *L'Eguille du Dru*;[2] and Mont Blanc, which is the farthest to the West. 'Tis this Point of *Mont Blanc* which is supposed to be the Highest in all the *Glacieres*, and perhaps of all the Alps. Many Persons of the Country who have travelled assured me, that they had seen it from *Dijon*, and others from *Langres*, which is 135 Miles distance. For the Top of it is easy to be distinguished, because it is blunt, and quite steep on the North-side; if the Sides were prolonged, so as to make an Angle at the Top, I imagine it would be of 25 or 30 Degrees. This Mountain is entirely covered with Ice, quite from the Top down to the Bottom. The Mountain which we went up in order to see the Valley of Ice has three Names, the East-side is called *Montanvert*, and that towards the West *Blaitiere*,[3] and that in the Middle the *Charmaux*.[4] Upon this Mountain there rise four Points something like the *L'Eguille du Dru*, which are called the Points of *Charmaux*. All these Points are absolutely inaccessible, some by reason of the Ice, which covers their Surface almost entirely, as *Montmallet* and *Mont Blanc*, and others on account of their Steepness. 'Tis at the Foot of these Mountains, and along the Valley of the *Glacieres*, that they find Crystal, and not under the Ice, as some have pretended. The Crystal is found in the very substance of the Rock, after this Manner: Those who go in search of it know where to find it by certain white and blue Veins, which they see upon the Rock. These Veins are either alone, or many of them together, which unite in one Point; they strike upon the Extremity of the Veins, and when they hear a hollow Sound they break the Rock, and find the Crystal in Cavities, which are sometimes many Feet deep, which they call Ovens. Crystal is a Stone which, in my Opinion is produced by a gentle Vegetation, and not by Congelation; every one knows that they are Shoots, all of the Figure of a Hexagon, joined one to another, almost like the Cells in Honey Combs. These Shoots are sometimes unequal in Thickness and Length, but all terminate in a Point, as if they had been cut Diamond Fashion, they all stick to a kind of Stone of an irregular Shape, which is a kind of Root to them, partaking of the Nature both of Rock and Crystal, of a blue, white, black, and brown Colour, extremely hard and heavy; this Stone is called the *Matrix*. We must observe, that when once the Crystal is taken away, there never comes any other, although the *Matrix* be left in the same Place where it was found: And this has made some People think that Crystal was formed from the Beginning of the World. It happens sometimes that Pieces of Rocks fall down with the Ovens of Crystal contained in them, and roll upon the Ice. 'Tis for this Reason that the Countrymen often find Pieces of Crystal on the Surface of the Ice, and sometimes adhering to it, and even in the Current of the Water, which forces itself up through the Clefts of the Ice. There are some Places where the Cattle cross over the Ice to go and feed at the

---

[1] Mont Mallet (13,085 ft.). First ascended in 1871, by Messrs. Leslie Stephen, Wallroth and Loppé.

[2] Aiguille du Dru (12,320 ft.). First ascended in 1878, by Messrs. C. T. Dent and J. W. Hartley.

[3] Aiguille de Blaitière (11,549 ft.). First ascent by Mr. E. R. Whitwell in 1874.

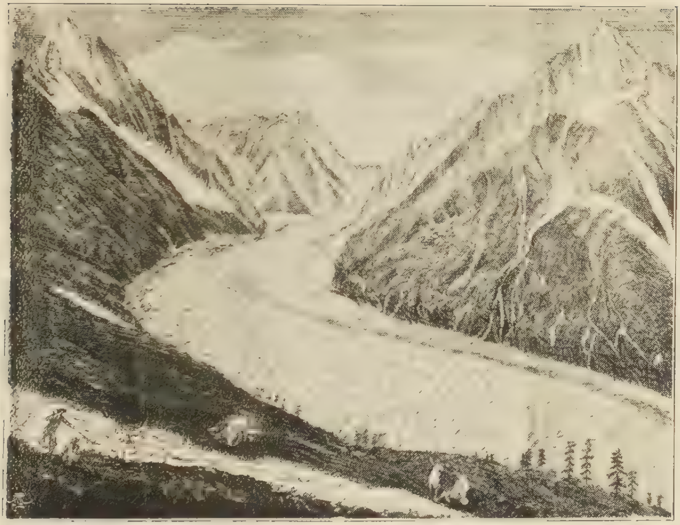
[4] Aiguille des Grands Charmoz (11,293 ft.). First ascended in 1880 by Mr. Mummery.

Bottom of the Mountains, on the other Side of the Valley, in Places where the Sun can come, and where there is some Pasture, and they do it the more easily, because the Surface of the Ice is fringed over with Gravel, or small Particles of Rock, which the Wind probably brings from the neighbouring Mountains. We found also upon the Ice many large Stones, which in my Opinion had fallen down from the Tops of the Mountains, altho' the People of the Place pretend that they were raised from the Bottom of the *Glacieres*. I have already observed, that the Valley of Ice has a communication with the Valley of *Chamouny*, by five Openings, each of which has a Name, as will be seen in the Plan at the End of this Account. The *Glacieres* stretch by diverse Openings and Vallies, as far as the Valley of *Courmayeur*, in the *Val d'Aoste*, but not by an uninterrupted Communication as formerly, by reason of the falling down of some Pieces of the Mountain.[1] And therefore it is impossible to go from *Chamouny* to *Courmayeur*, by the Valleys of the *Glacieres*. Of the five Openings which end in the Valley of *Chamouny*, that which is called the *Glacier des Bois* is the most considerable, not only for its Beauty and Largeness, but because the River *Arbairon* has its Source there; it comes out from under the Ice,[2] through two Arches all of Ice. 'Tis a Sight equally beautiful and extraordinary to see the Inequalities which rise above these Passages more than 80 Feet in Height, and which appear to be the finest Crystal in the world, reflecting an infinite Number of bright Colours, just as if one looked through so many Crystals, as there are Excrescences of Ice. For you

---

[1] A more detailed reference to this pass is found in the account of the journey to Chamonix of De la Rochefoucauld, dealt with in the following chapter.

[2] The source of the Arveyron soon became one of the great show-places of Chamonix. As will be seen presently, one of the earliest of the Alpine accidents took place there.



BOURRIT'S VIEW OF THE MER DE GLACE.

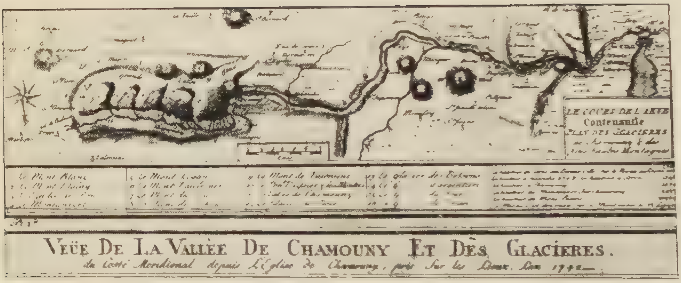
[*To face p.* 116.

must imagine this Place, as composed of a vast Quantity of Vertical Shoots, adhering to each other, and terminating unequally both above and below. 'Tis not without great Difficulty that we came to this Place, so worthy of Admiration, we were even forced to go thro' one of the Passages where the Water was not so abundant as at the other, and not without Danger, by reason of the Pieces of Ice which fall off sometimes, which our Guides have seen happen. The *Arbairon* is a large Stream which falls into the *Arve;* it comes from under these Arches, and carries along with it a vast many Particles of Gold, as the Goldsmith who was with us shewed us. The Rivulet of *Argentiere*, which comes from the *Glacier* of the same Name, carries with it also Pieces of Gold and Silver, which has not been observed at the Source of the *Arve*. I imagine that the *Arbairon* has another Source besides the melting of the Ice, because the Water never fails no more than that of the *Arve*, which rises in a Mountain, where there is neither Ice nor Snow in Summer. However that may be, the *Arve* and the *Arbairon* carry along with them a very fine and white Sand, which makes the Water look as if Soap had been dissolved in it; it keeps this Colour, till it receives the *Nan de Bois* into it, of which I have already spoke, which brings a very black Sand, that changes its Colour to a dark grey, which it keeps till it falls into the *Rhone* below *Geneva*. I imagine it may take along with this last mentioned Water some Gold Dust, for we observed in crossing this *Nan de Bois* a vast many Stones which seemed to contain both Gold and Silver. All the *Glacieres*, at least those which are called the *Glacieres of Chamouny*, are situated on the left Side of the *Arve;* there is indeed a little one on the other Side, in the Mountain of *Valorsine*, but it is not considerable, and has no Communication with the rest. Before I quit *Chamouny*, I'll say a word concerning its Natural History. The Inhabitants of this Country are very good sort of People, living together in great Harmony, they are robust, live to a great Age, and have very few Beggars among them; they don't begin to cultivate their Lands till the Spring, after the Snows are melted, which is sometimes at the End of *April*, and sometimes at the End of May; then they begin to Plough, and Sow their Grains, such as Rye, Barley, Oats, Beans, and Buckwheat which they reap in September. And of all these Grains they make a kind of Cake, which is very hard, because they dry it in the Sun after it is baked, and they preserve it thus many Months. They don't make use of Wheat but for Children, and that in very little Quantity. 'Tis surprising to see how the Mountains are cultivated, in Places that are almost perpendicular, where they Plough and Sow as cleverly as can be done on the Plains. This we first observed near *Salanches*. Fruits ripen very late in this Country for we saw Cherries there which were not quite ripe, and we found Flowers and Fruits on the Mountain, which are never seen with us, but in the Spring. We observed, as we were going up the Mountain, a fine clear Mineral Water, partaking of Iron and Sulphur, it is very delicious and cool; their Honey is white, resembling very much that of Narbonne for Colour, but not for Taste. The Sheep which are kept near the *Glacier* lick the Ice, which serves them for drink; they are left without any one to watch them, there being in this Valley no Beast of Prey, though Bears, Wolves, and Foxes abound in the Country all about. Nothing inhabits here but *Chamois*, *Bouquetins*, who keep in the high Mountains, and a great quantity of *Marmotes;* this is the Account the Inhabitants gave us of this Animal. They sleep six Months of the Year, that is, all Winter, and in the Summer they provide a warm Couch against their Time of Sleeping; for this End they cut Herbs with their Teeth, and in order to carry them to their Holes one of them lays on its Back, and the others load it like a Cart, and then drag it by the

Ears to the Hole. They pretend also that they provide against being surprised, by placing Sentinels, who give them the Alarm by a whistling noise; they eat these *Marmotes*, and find them very good, and use their Fat to burn in Lamps; there are no Birds of Prey in this Valley, nor Crows, neither are there ever any Swallows. I observed a remarkable kind of Grasshopper, much resembling a Dragon Fly, with long Legs. We staid at Chamouny from *Tuesday* Evening to *Thursday* Morning, but I could make no more Experiments with my Barometer, because it had been damaged. We went from thence, and lay at *Cluse*, and from that Place to the Mountain called the *Maule*, which I look upon to be somewhat higher than *Montanver*, because we were half an Hour longer in going up it, although the Road is very even, as well as steeper. I wished to have had my Barometer to take the Height of it, but I was forced to content myself when I got up to the Top to observe the Angle of Position of the *Glacieres*, with respect to *Geneva*, which I found to be 158 Degrees precisely. I looked down on all the Objects about us with great Pleasure; the Prospect put me in mind of that fine Plan which you have seen in our Publick Library, for the Plain below, seen from this high Mountain, at first Sight gives one the same Idea. 'Tis wonderful to see those Places, which we take to be nothing but high Mountains, divided by fine and fertile Valleys, covered with all sorts of Trees and Fruit; an infinite Number of Villages, which being in deep Bottoms, appear from thence to be situated in a rural and agreeable Manner. In a word all the Pains I took to clamber up this Mountain were sufficiently recompensed by a Prospect so beautiful and so uncommon. After having stayed in this Situation about half an Hour we went down again, and continued our Journey. We lay at *Contamines*, from whence we arrived at *Geneva*, Saturday Morning the 26th, all vastly well satisfied with our Journey, and without any other regret than not having stayed longer at *Chamouny*, to have considered the Beauties of the Places thereabouts. Those who may hereafter be desirous to undertake this troublesome and curious Journey, ought to add to the Precautions which we have pointed out, that of employing more time in it, and, if possible, to come round by *Switzerland*, which would be very easy from *Chamouny*. Nothing could be more agreeable than this Journey, by reason of the Rarity and Variety of Views which continually occur; but then it would be right to view the *Maule* in going there. Suffer me, Sir, to address this Account of our Voyage to you, as the Person to whom of right it belongs; you marked us out a way which was easy to follow by the Help of your Directions. I hope you'll pardon the Incorrectness of my Style, and want of Method in putting things together; I committed to Paper whatever occurred to me and my Companions; 'tis Truth alone which can recommend these Papers, and 'tis that alone which can engage you to receive them favourably and as a Mark of the sincere Regard with which

I am,
Sir,
Your most Humble
and most Obedient Servant,
P. M.

P.S.—In going up *Montanver*, through a very narrow and difficult Path, towards the *Glaciere de Bois*, we found some fine Plants, without either quitting our Guides, or our Company, or going out of the Path; namely, *Pyrola folio mucronato; Consolida Sarcenica minor Alpina; Alchymilla Alpina minor quinque-folia; Lamium album Plinii; Asclepias flore albo; Victorialis longa; Euphrasia Alpina luteis floribus; Meum Athamanticum; Carlina acaulis; Helleborus albus; Lapathum* of many Kinds. *Not to mention* many


LE COURS DE L'ARVE Contenant le PLAN DES GLACIERES
Veüe De La Vallée De Chamouny Et Des Glacieres.
du Costé Meridional depuis L'Eglise de Chamouny, pris Sur les Lieux. Lan 1742.

MARTEL'S MAP OF CHAMONIX.

[*To face p.* 121.

other Plants, which would rather make a Catalogue than a Relation of a Journey. All along this Mountain there are many kinds of Pine and Fir; there are also many Larch Trees in *Latin Larix conifera folio deciduo;* we found there some fine Agaric, and in the Trunks of several Larches there were Horizontal and Lateral Incissions, by which the *Italians* had extracted Turpentine. At the Source of the *Arbairon*, which is at the Foot of the *Glaciere de Bois*, in the Valley of *Chamouny*, and even in the Bed of this Source of the *Arve*, which was not covered with Water, we found the following Plants; namely, *Muscus capillacius lanuginoſus densissimus; Lythophyton album nodoſum; Sedum alpinum subbirsutum, corona floris purpurascente disco viridi*, and many other kinds of *Sedum*.

ADVERTISEMENT.

Geometry, Trigonometry, Surveying, Fortifications, Gunnery, Mechanicks, and several other Branches of the Mathematicks, are taught (in *French*) both at Home and Abroad, according to the best and most expeditious Methods. Also Land-Surveying, and Maps and Plans executed in the correctest Manner.

By M. PETER MARTEL of *Geneva*, Engineer. At the *Grey Head* in *Queen Street, Soho;* to be heard of likewise at *Slaughter's Coffee House.*

Where may be had,

His PLAN of the City and Fortifications of *Geneva*, and the adjacent Parts, as they were in the Year 1743.

He also makes and sells Pocket and other Thermometers, with several Improvements, and the different Graduations of *Farenheit, Reaumur*, Sir *Isaac Newton*, Dr. *Hales*, and others, placed in such a Manner on the Instrument, as to be easily compared one with the other.

CHAPTER XIV.

Later Visitors to Chamonix—An Unsuccessful Attempt to Ascend the Aiguille du Dru.

Windham's and Martel's excursions set a fashion which gradually established itself on a sound basis. By the eighties the Glacières had become so popular that, according to Lalande, the number of visitors in the season averaged thirty a day. A few of them merit a word of special mention.

The *savant* Firmin Abauzit[1] (1679—1767) made a map of the Glaciers at a very early date. There were "curious remarks on the mountains called the Glacières, and in particular on those of Faucigny," in a paper read before the Royal Society of Lyon in 1750, by the Marquis de Maugiron, and referred to in *La Nouvelle Bigarrure*, a magazine published at the Hague, in 1753. In the *Annuaire du Club Alpin* for 1893, M. Lucien Raulet printed from a manuscript preserved in the Bibliothèque Nationale, a description of a similar tour undertaken in 1763 by Louis-Alexandre de la Rochefoucauld, duc de la Roche Guyon et de la Rochefoucauld d'Enville, who had come to Geneva with his mother to consult the celebrated Dr. Tronchin.[1]

---

[1] Firmin Abauzit was a French *savant* residing at Geneva, and notable for being the only man whom Jean Jacques Rousseau ever eulogised. The passage is worth quoting:—

"Non, ce n'est pas vous que je veux faire connaître à ce siècle indigne de vous admirer; c'est Genève que je veux illustrer de votre séjour, ce sont nos concitoyens que je veux honorer de l'honneur qu'ils vous rendent. . . . Vous avez vécu comme Socrate; mais il mourut des mains de ses concitoyens, et vous êtes chéri des vôtres."

M. de la Rochefoucauld was to be a notable character in later days. We catch glimpses of him in Carlyle's *History of the French Revolution;* first sitting in the States-General, he and Liancourt coupled as "the liberal Anglomaniac Dukes"; then as President of "a *Feuillant* Directory founding on character and such-like"; finally, at Gisors, on his way to seek a haven from the storm, "conducted along the streets amid effervescing multitudes and killed dead by the stroke of a paving stone hurled through the coach window." In 1763, however, the Revolution was still a long way off, and M. de la Rochefoucauld was only a lad of nineteen. Two things are noticeable in his narrative: the beginning of that Anglomania which was to attract the attention of Carlyle; and a rather melancholy contrast between proud promise and indifferent performance.

Observe the haughty air with which, rejoicing in his Anglomania, M. de la Rochefoucauld sets out upon his journey:—

"Mr. Windham, a young Englishman, who was then less than twenty years of age, undertook this painful journey, and carried it to a successful termination. Only an Englishman or a Knight Errant could have done it, and he was an Englishman. It was a far graver enterprise than fighting with giants, winged dragons, sheep, or windmills. He had to walk through a frightful country, by roads covered with stones that roll down from the mountains, to ford rivers, to brave the voracious insects with which the inns of Savoy are peopled; but his courage enabled him to triumph over all these obstacles. Since then, all the English who have visited Geneva have made this excursion; a few Genevese have made it; but no Frenchman has ever attempted it. Ashamed that these mountains, so close to my own country, should be still unknown, while we know the mountains of countries far more remote, I, like a second Windham, said that I would make this journey. I have made it, and I have returned from it."

---

[1] He was a specialist for the hysterical complaints of fashionable women. It is written of him:—

"Il traita la maladie alors à la mode (les vapeurs) par le grand air, l'exercice, et l'occupation."

M. de la Rochefoucauld slept at the house of the Curé, and, on the following morning, made the ascent of the Montenvers. His commentator, in the *Annuaire du Club Alpin*, declares that this was the beginning of French Alpinism. But to say this is to ignore the pioneers of the Pyrenees; and in any case M. de la Rochefoucauld's was a very poor and feeble beginning. So much is evident from the narrator's account of his method of proceeding along the rough path which led him to his destination. He says:—

"To avoid tripping, which the stones along the path would have made dangerous, I was obliged to hang on to the tail of my frock coat, which one of the peasants carried slung over his shoulder."

Later, after describing an interesting attempt at a glissade, he adds, in his account of his return, that

"Up to that point the track was so frightful that I walked, all the time, with the assistance of one or two peasants."

There, perhaps, we may leave M. de la Rochefoucauld. As for his other stories—the story of the peasant who claimed to have made the pass of the Col du Géant to Aosta, has already been referred to, and the story of his travelling companion who brought on an attack of colic by eating too many wild strawberries is of no particular importance. The next visitor to the valley whom it seems worth while to mention (though there were many in the meantime) is Dr. John Moore, the father of the more famous Sir John Moore who died at Corunna, and the author of the notable novel, *Zeluco.*

Between the years 1773 and 1778, Dr. Moore was travelling on the continent in attendance on the Duke of Hamilton. On his return he published, in 1779, an account of his experiences under the title of *A View of Society and Manners in France, Switzerland, and Italy.* When he was at Geneva, he felt that an excursion to the glaciers was necessary to his self-respect. This is how he puts it:—

> "The wonderful accounts I had heard of the glaciers had excited my curiosity a good deal, while the air of superiority assumed by some who had made this boasted tour piqued my pride still more.
>
> "One could hardly mention anything curious or singular, without being told by some of those travellers, with an air of cool contempt—'Dear sir, that is pretty well; but, take my word for it, it is nothing to the glaciers of Savoy.'"

So Dr. Moore went to the glaciers of Savoy, accompanied by the Duke of Hamilton, Mr. Upton, Mr. Kennedy and Mr. Grenville, and had pretty much the same experiences there as M. de la Rochefoucauld, though, being an Englishman and not an Anglomaniac, he made less fuss about them. His trip, indeed, would hardly have been worth mentioning had it not been the occasion of a certain weird attempt to make the ascent of the Aiguille du Dru. The attempt was not made by Dr. Moore himself—his years forbade it—but by his younger comrades. Though the spirited endeavour hardly belongs to the serious annals of mountaineering, the account of it is well worth quoting. This is how Dr. Moore reports the incident:—

"While we remained in contemplation of this scene, some of the company observed that from the top of one of the Needles the prospect would be still more magnificent, as the eye would stretch over Breven, beyond Geneva, all the way to Mount Jura, and comprehend the Pays de Vallais, and many other mountains and vallies.

"This excited the ambition of the D—— of H——. He sprung up, and made toward the Aiguille du Dru, which is the highest of the four Needles. Though he bounded over the ice with the elasticity of a young chamois, it was a considerable time before he could arrive at the foot of the Needle:—for people are greatly deceived as to distances in those snowy regions.

"'Should he get near the top,' said Mr. G——, looking after him with eagerness, 'he will swear we have seen nothing. But I will try to mount as high as he can; I am not fond of seeing people above me.' So saying, he sprung after him.

"In a short time we saw them both scrambling up the rock: the D—— had gained a considerable height, when he was suddenly stopped by a part of the rock which was perfectly impracticable (for his impetuosity had prevented him from choosing the easiest way), so Mr. G—— overtook him.

"Here they had time to breathe and cool a little. The one being determined not to be surpassed, the other thought the exploit not worth his while, since the honour must be divided. So, like two rival powers, who have exhausted their strength by a fruitless contest, they returned, fatigued and disappointed, to the place from which they had set out."

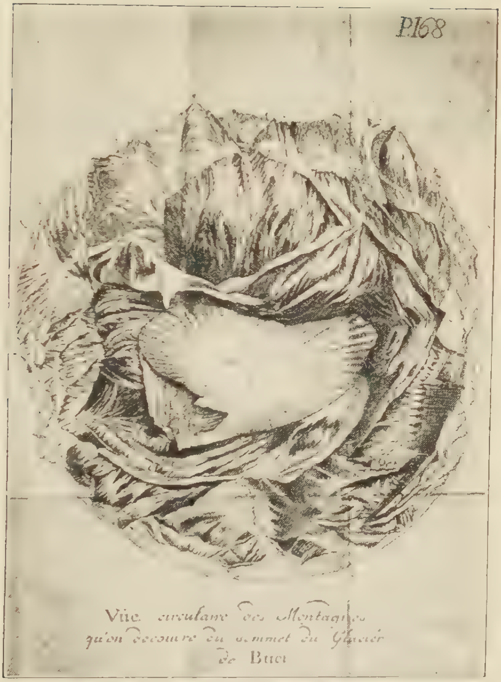
So the story goes. It hardly counts; but it may serve to strike the note of contrast with the graver mountaineering stories which have to follow.

CHAPTER XV.

Jean André de Luc, the Pioneer of the Snow Peaks—His Two Ascents of the Buet.

We come to Jean André de Luc. If he was not actually the pioneer of the snow peaks, at least he was the earliest climber of snow peaks concerning whose achievements we possess any trustworthy explanation. According to the Reverend William Coxe, "tradition reported" that, in the year 1739, three men had ascended the Titlis from Engelberg; but no details of that excursion are discoverable; whereas De Luc's attempt upon the Buet in 1765, and his ascents of the same mountain in 1770 and 1772, have been fully recorded by contemporary writers.

De Luc was born, in 1727, at Geneva, where his father followed the humble calling of a watchmaker. He received a sound scientific education, but began life by devoting himself to public affairs, being sent on diplomatic missions both to Berne and Paris, and becoming a member of the Grand Council of Geneva. Science, however, retained the principal place in his affections. In 1762, he submitted to the Paris Academy his *Researches on the Modification of the Atmosphere*,—a work on the use of meteorological instruments,—and subsequently became a member of the Royal Societies of London, Dublin, and Göttingen. Later, he substituted mercury for spirit in the thermometer, and invented the hygrometer—an achievement which was crowned by the Academy of Amiens. An appointment as reader to Queen Charlotte brought him to England in 1773.


P.168
Vüe circulaire des Montagnes
qu'on decouvre du sommet du Glacier
de Buet

THE PANORAMA FROM THE BUET.

[*To face p.* 128.

In 1778 he dedicated to her Majesty his *Lettres Physiques et Morales sur les Montagnes et sur l'Histoire de la Terre et de l'Homme*,—an account of a journey through Switzerland, in which he was acting as guardian to a lady in whom the Queen was interested. For a period he resided at Berlin, but left for Brunswick in 1802, returned to England after the battle of Jena in 1806, and died at Windsor, at the ripe age of ninety, in 1817.

It was, no doubt, to his association with the Courts of Europe that De Luc owed the style which distinguishes his writings from those of other early mountaineers. He took the mountains very seriously, as became a man of science; he had a very genuine curiosity to know at what temperature water would boil at any given altitude. But when his pen is in his hand, he merges the climber in the courtier and the diplomatist. There is quite an ambassadorial touch in his endeavour to reconcile the conflicting interests of geology and Genesis; he was the originator, be it observed, of the useless, but plausible, *modus vivendi* expressed in the suggestion that, when Moses spoke of "six days," he meant six indefinite but considerable periods of time. In the delightful letters in which he reports his progress through Switzerland to his royal patron, his enthusiasm for the scenery is quaintly tempered by regard for the feelings of a great Personage too exalted to be sensible to the same untutored emotions as the vulgar herd. He urges the claims of the mountains with a certain diffidence,—a certain doubt whether they would seem so impressive to a Queen as they do to the self-made man, whose father was only a Geneva watchmaker.

Our business, however, is not with De Luc the courtier, but with De Luc the climber; and there are no fewer than four books to which we may turn for an account of his ascents. A chapter dealing with them is found in his work on the Modifications of the Atmosphere. This chapter is reprinted, with additions, in a pamphlet bearing the title: *Relation de Différents Voyages dans les Alpes du Faucigny. Par Messieurs D. et D.* (Maestricht, 1776.) Another version of the same story, derived from the same source, was included in Bourrit's *Description des Glacières, Glaciers et Amas de Glace du Duché de Savoye* (Geneva, 1773); and one of the *Lettres Physiques et Morales* contains anecdotal reminiscences of the excursions of 1772.

The first attempt, made in 1765, was entirely unsuccessful. De Luc not only lost his way, but also broke his thermometer, which he had taken with him for the purpose of determining the temperature at which water boiled. Led by incompetent guides, he scrambled for four hours "by tracks on which we were often obliged to help ourselves with our hands, and to employ precautions when we wanted to look back," with the result that he ultimately found himself on the edge of a precipice, with a profound chasm intervening between him and his goal. So he admired the view and went home again, and after an interval partly occupied in boiling water on the hills of Languedoc, made a fresh attempt upon the Buet in 1770.

That year, however, though it ended with success, began with failure. The party set out, for the first time, on August 24th, taking for their guide an "apprentice to a hunter," whom they discovered on the hillside, engaged in making cheese, and who refused to start until he had finished making it. But, De Luc says, "he was not the expert that we required"; with the result that the day was crowded with misfortunes. De Luc slipped and performed an involuntary glissade. One of his companions turned giddy and had to go back. Their guide, like the guide of five years before, took them the wrong way; and when they tried to console themselves by boiling some water, he burst out laughing, sat down on one of De Luc's feet, and sprained that philosopher's ankle. Then, with hardly an expression of regret, and without any offer of assistance, he went off down the hill to milk his cows. "Perhaps," says De Luc philosophically, "this was only because his bad reasoning got the better of his pity. Men, as a rule, are more inclined to be irrational than to be malicious. Our fellow was afraid of his master, and could imagine no claims upon him higher than those of the duty he was accustomed to fulfil."

Return, under these circumstances, was a difficult and painful matter. De Luc slid on his back "down 1,500 perpendicular feet," but the party were overtaken by the darkness, and had to sleep in the open with nothing more closely resembling a rug or blanket than the napkin in which they had been carrying their provisions. Spreading this over their legs, they managed to sleep a little, but were so stiff when they awoke, that it was a long time before they recovered the free use of their limbs, and could continue their descent to Sixt.

The general belief of the peasants was that the philosophers were searching for the precious metals. Several of them took the travellers on one side to show them where they had seen traces of minerals. The travellers answered that all that they wanted was to be shown a way to the top of the mountain. At last they succeeded in making their meaning understood. Competent guides who really knew the way were indicated, so that their next attempt, on September 20th of the same year, was made under more promising auspices than the previous ones.

They left the Abbaye of Sixt, where the monks had entertained them nobly, at two in the afternoon. Arriving at Les Fonds at half-past four, they occupied the rest of the afternoon in questioning their guide on the manner of life of the inhabitants of the mountains,—a subject which, De Luc justly declares to be "well worthy of the attention of the philosopher."

"These people," he explains, "have their troubles because they are human; we were witnesses of that. But they do not anticipate their troubles by anxiety, or intensify them by reflection. They know how to hope, because they expect everything from the Author of Nature; and resignation, that effort of the Stoic Philosophy, is with them the natural outcome of the fact that the evils which they endure are dispensed by the same Hand that bestows the benefits which they enjoy."

And so to bed in a *châlet* with the customary discomforts from smoke, draughts, and carnivorous insects. The weather broke the next day, and they were driven back to Sixt. There, however, it cleared again, and a fresh start was made. They slept again at Les Fonds, and by seven o'clock on the following morning were taking the temperature of boiling water at Plan de Lechaud. This task performed, they once more proceeded on their way, enjoying "a multitude of agreeable sensations." In due course they reached the glacier, and the account of their ascent of it is remarkable for the fact that it speaks of the cutting of steps in the ice as an astonishing and ingenious invention. Let us quote:—

"We were at the foot of the Glacier de Buet, which, as I have said, covers the entire summit of this mountain. It was still covered with snow. The snow which had fallen during the preceding winter had not entirely melted during the summer, and some of the fresh snow was still lying. The crust of this snow was very hard, because it had frozen during the night, and the sun was not yet shining on it. We had foreseen this, and had provided ourselves with woollen socks, with which, and our iron-tipped sticks, we expected to be able to walk easily.

"For a while we applauded ourselves for our invention. We ascended, without slipping, a fairly steep slope; but at last the gradient increased so that both my feet slipped, and, but for my iron-tipped staff, which, when I drove it into the crust of snow, finally held me firm, I should have descended to Les Fonds, but should never have seen the place again. . . .

"Save for our guide we should never have got to the top; we were not shod for such an enterprise. But he, with thick nailed boots, kicked the snow sideways as he ascended. In this way he made little steps in the crust of snow which supported him, and by means of which we climbed up after him, supporting ourselves upon our batons. . . .

"It was near mid-day when, at last, we got to the top, and suddenly lifting our heads above the curtain which had so long veiled the horizon to the east, we discovered the immense chain of the Alps, stretching for a distance of more than fifty leagues. . . .

"The details, as well as the general effect, would have aroused the admiration of the most indifferent of men. A single glance at the immense quantities of ice and snow which cover the Alps is sufficient to set the spectator's mind at ease as to the duration of the Rhone, the Rhine, the Danube, and the Po. One has the feeling that this is their reservoir, and that it could hold out against several years of drought."

So did De Luc meditate, until his meditations were cut short by the discovery that he was standing on a cornice. The account of that discovery shows that the climbers of 1770 had still a good deal to learn about the nature of cornices. For we read:—

"After our attention had been for some time directed to the surrounding spectacles, it was violently brought back to our own case when we discovered that all that we were standing upon was a mass of coagulated snow which jutted over a frightful precipice. Our first movement was a precipitate retreat. But having gathered by reflection that the addition of our own weight to this prodigious mass which had thus supported itself for ages, counted for absolutely nothing, and could not possibly break it loose, we laid aside our fears and went back to the terrible terrace. The mountain was as steep on this side as on the side of Les Fonds, and the projecting ice carried us far out over the precipice; so that if we had thrown out a rope from the place where we were standing, it would have had to fall 500 feet before it touched the rock."

It is unnecessary to point out that it is unusual, in these days, to treat cornices so unceremoniously; but it is well known that several accidents had to happen on the Lyskamm and elsewhere before climbers in general general recognised the need of caution.

De Luc went so far as to boil water on the cornice. Having done this, he started to descend. The guide glissaded, but the men of science did not follow his example, because "this was not the proper place for making such experiments," though the experiments which they had made with the cornice were, if only they had known it, of a far more perilous character. They got back to Plan de Lechaud, where they boiled yet another kettle of water, at 3.30. Half-an-hour's rest refreshed them so that they could start again, and walking in the dark through the pine forest, they got to Sixt at half-past eight.

In his second ascent of the Buet, in 1772, Jean André de Luc was accompanied by his brother Guillaume, and by M. le Ministre Dentan. M. Dentan's account of the excursion is found in the *Relation de Différents Voyages*, from which so many citations have already been made; but the personal note sounds louder in the description which De Luc himself included in the first of his *Lettres Physiques et Morales*.

His purpose was, as he begins by explaining, "to make observations with the *hygrometer* which YOUR MAJESTY has been so good as to honour with a place in her apartment." He went by a new route, and passed the night in the Valley of Anterne, where he had the greatest difficulty in discovering the *châlet* in which he had planned to sleep. But that hardly mattered. "The mountain air has this salutary property that it spreads a kind of calm through all the organs, allowing the soul to enjoy itself very tranquilly." At last they found a hut, where a group of women were gathered round the fire.

"They expressed surprise, but no alarm, at the arrival of five men. We asked their hospitality, and it was immediately accorded to us in the most natural way. Several of the women withdrew, and there only remained a couple,—the mistresses of the house. All that they had was offered to us. It was only milk and cheese; but there was enough of it, and we supped very well."

Then a sad accident happened. De Luc knocked over his thermometer and broke it, and "gave a cry which shook the cabin." The women, his hostesses, expressed "the most tender solicitude," and inquired what was the matter. "My good women, it is all over," answered the philosopher; and he continues: "We lay down to sleep on dried grass spread on the floor between the fire and the truckle bed on which our hostesses were lying, as we had absolutely declined to turn them out of it."

This picture of three philosophers and two peasant girls sharing a bedroom without false modesty or embarrassment is quite idyllic; the only parallel that comes to the mind is Robert Louis Stevenson's story of the night when, on his journey through the Cevennes, he had to sleep in the same apartment as a newly married couple; De Luc would doubtless have made more of it in his narrative if he had been writing to some one of lowlier station than a Queen. As it is, he passes lightly over the incident, and proceeds to the account of his climbing.

On his way down he was overtaken by darkness and a thunderstorm; the way was lost; the party nearly slid down a grass slope which terminated in a precipice; they also stumbled in a steep ravine, with the result that they were badly bruised. The lightning flashed from time to time, and showed them what peril they were in. They had made up their minds to stay where they were until the storm was over, enduring discomfort in preference to facing danger; and the rest must be told in De Luc's own words:—

"In our terrible distress we remembered the good women of Anterne. We guessed that their huts must be somewhere beneath us, and we all shouted together. Soon we received assistance in this endeavour; our guides heard us and in their turn echoed what is called the mountain cry (for M. Rousseau has very well observed that shepherds acquire loud voices through the necessity of making themselves heard at a distance). In response to these reiterated shouts there appeared, in the depth of the darkness, *a little light!* My heart still beats when I recall that moment. So we were heard! Then our shouts were redoubled, and the hope of getting away from danger took the place of our determination to suffer in order to avoid it. The little light, which we saw was moving, disappeared, but only in order to reappear in greater force. It grew so powerful that its rays penetrated to the place where we were sitting. Devoting our attention to this beneficent meteor, we, at first, only contemplated it with emotion; but, at last, the true cause of the phenomenon was revealed to us. Angels, in the guise of mountaineers, were trying to make their way through the night, in spite of the rain, the hail, and the winds. A huge fire was lighted, and we saw torches start from it, and direct themselves towards the same side of the mountain, one succeeding to another as the rain and the wind put them out. One torch, however, larger than the others, resisted all the efforts of the wind and rain, and burnt up sufficiently for our guides, who had at last recovered their courage, to recognize the way we ought to go. We climbed up the ravine on the left, with considerable difficulty, and guided by the light of the big fire, rediscovered that of the torch, which we had, at first, lost sight of. And what was it? I am not surprised at the adoration which men pay to beneficent beings. Our hostess had braved every danger in order to come to our rescue.

"At last we arrived, with her, at the spot at which she had assembled her neighbours so as to have help and firewood: for firewood has to be carried up into these valleys. . . . '*Poor fellows!*' they all said, when they saw us come. . . . And as it was raining very hard, they withdrew. . . . They withdrew? . . . Yes; but that is a thing that you would see nowhere but in the mountains. Elsewhere, every one of them would doubtless have tried to make it clear to us that she had been, until then, exposed to the tempest, and had been put to great trouble in procuring the firewood.

"So we entered the hut with the mistresses alone. I need not explain to Your Majesty all that those who had already done so much for us did then; and, to make Your Majesty clearly understand how fortunate we were, it is only necessary to add that the storm lasted all through the night.

"In the morning, we wanted to pay our hostesses. . . . Ah! how ashamed of myself I feel. . . . They absolutely refused to accept anything. However—the confession must be made—having perceived that one of the two seemed to be less in the position of a mistress than the other, I approached her, drawing my hand from my pocket. I do not tell this story to shame her. Your Majesty will understand if I explain what I saw clearly written in this woman's countenance. Humanity, and nothing else, had caused her to be of service to us. . . . She had found her reward in the good deed. . . . The thought of money had not occurred to her. . . . Still, a whole crown! . . . The sight of it brought out a smile upon her face. . . . But the idea of accepting payment for a service! . . . This feeling made her look down. . . . She put out her hand, took the money, and grasping my hand, shook it with a peculiar expression of friendship, which is the mountaineer's only token of respect. Not otherwise would they shake the hand of a Queen. None the less, my pleasure in observing this woman's satisfaction was not unalloyed; for it is thus that human nature is corrupted; and there are times when I reproach myself. I should reproach myself without ceasing if there were any chance that Anterne would become a frequented place. And this is not a passing reflection merely. I have made it again and again when I have perceived that this is how one alters the nature of the recompense which good people look for."

CHAPTER XVI.

M. Murith, Prior of the Great Saint Bernard—His Ascent of Mount Vélan in 1779.

In spite of the widespread interest which they aroused, M. de Luc's two excursions to the Buet were slow in giving any perceptible impetus to Alpine exploration. At all events, though the Glacières were daily growing in popularity with Genevan philosophers as well as with British tourists, no fresh ascent of a snow peak is recorded until 1779—the year in which M. Murith got to the top of the Vélan.

M. Murith was at once an ecclesiastic and a man of science. Born in 1752, at Saint Branchier (Valais), he took holy orders, and became Prior of the Great Saint Bernard Hospice, which he embellished with a mineralogical Museum. Retiring from this office, he held the cure of Lydde for many years, and was ultimately promoted to be *Prévôt* at Martigny—the retreat of the aged St. Bernard monks—where he died in 1818. He was a corresponding member of the Celtic Academy of Paris, and wrote a Botanical Hand-book to the Valais, which was published at Lausanne in 1810. As for his mountaineering, he does not seem to have written anything about it except in letters to his friends. No single fragment bearing on the subject is to be found in the Great St. Bernard Library. But Bourrit, the Historian of the Alps, to whom we are coming in the next chapter, heard two accounts of the climb, one direct from the climber, and the other through the Genevan *savant,* M. Bérenger, and fusing them together, produced the description which is subjoined. The narrative is graphic enough to be allowed to tell its own story without either omission or comment by the way:—

"That which I was hoping to do, some day or other, in the company of this estimable ecclesiastic, he has himself done this year; he has got to the top of this mountain, whence he had, both overhead and under foot, a view of the rarest and most astonishing description. On his return to his cure of souls at Lidde, he caused the news to be sent to me at Paris, and shortly afterwards I received M. Bérenger's description of the ascent. This close friend of mine, with whom I have twice travelled through the high Alps as far as the Saint Gothard, was anxious to get at the barometrical results of the Prior's observations, and to rectify the errors in it by means of logarithms.

"The Vélan is a mountain of the *Bas Valais*, which, from a distance, appears to stand alone, because its conical peak rises high above the surrounding eminences. At its base lies the Valley of Entremont, of which it forms the termination; on its slope, which extends for a great distance, is the vast *Glacier de la Valsoret;* the mountain itself is an enormous glacier. Several previous attempts had been made to ascend it; but they were all unsuccessful. The difficulties did not discourage M. Murith, the fatigue did not stop him; he braved the danger and overcame all the obstacles.

"In previous years he had endeavoured to find a way to this lofty summit, but without success; chains of bristling and perpendicular rocks, or the deep crevasses furrowing the vast slope of ice had invariably stopped him; his baffled attempts showed him to which portion of the mountain to direct his efforts; he started, on August 30, 1779, accompanied by two hardy hunters, one from Lidde, and the other from the *Bourg de Saint Pierre*. They carried provisions, two thermometers, a barometer, and a spirit level;

they walked vigorously to reach the mountain of Zousse, situated two leagues from the *Bourg de Saint Pierre*, between it and the Vélan; they drew near a *châlet* where they proposed to pass the night; but the peaceable inhabitants had already locked their doors, and only opened them at the voice of M. Murith, whom they respected. Then they made them welcome to all that they possessed, they supped gaily, but could not sleep in beds because their good hosts had none. Some dry hard grass, the litter of the cattle, served them instead, and they dozed rather than slept until half-past two o'clock in the morning. Then they rise, breakfast, and start, by the bright light of the moon, up a grass slope, interrupted by large rocks which were scattered over the steep face of the mountain. They reach the lower end of the Glacier du Proz, which serves as a slope to approach Mont Vélan, and stretches, on an inclined plain, for a distance of half a league. The sun was just then beginning to gild the summit of Mont Blanc. Illuminated alone in the long chain of barren mountains and slender aiguilles which seem to buttress it, one might well have imagined it a volcano surrounded by the *débris* of mountains overthrown by its earthquakes. For some time this spectacle arrested their gaze. Then they examined the barometer. It stood at twenty inches, while Reaumur's thermometer was at 3° and that of M. de Luc at 32° below zero. Standing them on the ice made no difference, but when they were lowered into a crevasse to a depth of four fathoms and a half, that of Reaumur marked 2°, while that of M. de Luc marked 34° below zero.

"After these observations our travellers continued to ascend, at first with ease, along the plain of the *Glacier du Proz*. In front of them, to the south-east, rose the Vélan; its top was still so high above them, and its sides appeared so steep, so perpendicular, that the hunters got frightened, and looking out in vain for a practicable passage, and seeing nothing but precipices, tried to persuade M. Murith that it was rash to attempt the ascent, even if the enterprise was not absolutely impossible.

"'Fear nothing,' he said to them. 'Wherever there is danger, I will go in front.'

"His example restores their courage. One of them follows him; the other, thinking to find an easier route, makes a long detour, loses sight of his companions, wanders all day long amid the piles of rocks and accumulated blocks of ice, and only discovers them again at nightfall. The hunter Genoud, however, who had not deserted his pastor, follows him, and even goes in front of him in the midst of fearful rocks, where it was necessary to leap, to hang over abysses, and to reach one another a helping hand. They walked thus for an hour and a half, without stopping except when it was necessary to gather all their strength together to negotiate some frightful precipice; and they believed that they had already surmounted the gravest obstacles, when a great mass of melted snow, rising in front of them like a wall, and ending, at a height of forty feet, in a crest with a narrow edge, frightens them, and causes them to hesitate a moment.

"They saw that a single false step must be fatal. They stop: then they encourage each other, and helping themselves with their iron-shod sticks and *crampons*, and only advancing slowly and prudently, they climb and get over this difficult passage. Further on the route was less troublesome; the track was difficult without being dangerous, and their hopes gave them fresh strength. They walked on, in this way, for an hour, and already the Vélan was beginning to lose its great height in their eyes, when suddenly a wall of ice presents itself in front of them. It was perpendicular, without a single crack in it; no support upon it for their feet to rest upon or for their hands to cling to. On either side of it were horrible precipices and threatening rocks, which it was impossible to scale. Amazed, the two travellers fix their eyes upon this wall, and upon all the crags that surround it, and find nothing there that does not frighten them.

"M. Murith is moved, and keeps silent; the hunter turns pale and vows that he will go no further; the image of his wife and children presents itself to his crushed spirit, and he thinks that if he goes on, he will never see them any more. Then M. Murith speaks to him, but only to tell him that they must rest before deciding whether the enterprise shall be abandoned. They were exhausted with fatigue and covered with perspiration. Having spent a few minutes in recovering his breath, the pastor also recovers his courage; he does not like the idea of approaching his goal and then renouncing the attempt to attain it; he exhorts his companion and makes him agree to follow him if he can find a way over this obstacle, and the hunter only consented because he was convinced that it was impossible, and that M. Murith would not even dare to try.

"Reinvigorated, M. Murith is seized by a fresh ardour. He arms himself with a pointed hammer, knocks holes in the ice wall to thrust his feet into and to clutch hold of with his hands, and so ascends slowly and with difficulty, and at last gets to the top of it. The astonished hunter trembles, but seeing the obstacle surmounted is encouraged, and in his turn overcomes it. Then they find themselves on a slope covered with stones, calcined, so to say, by the weather; split up and broken into tiny fragments of shale by the rain and cold which penetrate them, they break away under the feet which tread upon them, and make one's progress long and tiring; the effort which they had made to get up the ice-slope, and the effect of the rarefied air had dazed them, their heads ached; and it was not until they reached the summit that they found relief. Soon there was nothing left for them to do except to climb the rock which constitutes the peak of the Vélan. It is steep and fairly high, but its cracks and inequalities give handhold and foothold, and it was not an obstacle that could stop them for one moment after they had overcome the others. They scale it, and find themselves, to their surprise, on a level with the flat surface which forms the cap of the mountain. They make haste to get to it, in spite of the heat and their fatigue.

"A spectacle, no less amazing than magnificent, offered itself to their gaze. The sky seemed to be a black cloth, enveloping the earth, at a distance from it. The sun shining in it made its darkness all the more conspicuous. Down below, their outlook extended over an enormous area bristling with rocky peaks, and cut by dark valleys. Mont Blanc rose like a sloping pyramid, and its lofty head appeared to dominate all the Alps, as one saw it towering above them. In the distance, looking across deep valleys, one could distinguish the end of the Lake of Geneva, with Vevay stretching along its shores; the verdure-clad mountains surrounding it, and the road that leads to the Moudon; one could also distinguish the Chain of the Jura, and recognise the Lake of Neuchâtel lying at the foot of it. To the North one saw the Toricelles,—the mountains which rise above Bex. Other deep valleys would have revealed Milan and Turin, and the fertile country surrounding them, if only one could have pierced the vague obscurity which overhung them. For, on that side, the eye could only distinguish an ocean of air and clouds; while, nearer at hand, a number of glaciers presented themselves in various guises—some of them dully white, others glittering with the rays of the sun which they reflected. An imposing stillness, a majestic silence, produced an indescribable impression upon the mind. The noise of the avalanches, reiterated by the echoes, seemed to be the only thing that marked the march of time. Raised, so to say, above the head of nature, they saw the mountains split asunder, and send the fragments rolling to their feet, and the rivers rising below them in places where inactive nature seemed upon the point of death,—though in truth it is there that she gathers strength to carry life and fertility throughout the world.

"After this view had sunk into their souls, it occurred to them to consult the barometer. It stood at 17 inches 11 lines. Reaumur's thermometer was at $+3\frac{1}{2}^\circ$, M. de Luc's at 31·0. Let us pause here, therefore, to calculate the height of the Vélan. To get it exactly, it would be necessary to have a barometer of the sort made by *M. Paul*, that excellent and learned craftsman of Geneva, and the thermometer made to go with it. It would also be necessary to have a corresponding observation with similar instruments made in the plain. The calculation subjoined will only be an approximation. It would have been impossible, in fact, to make any calculation at all, if a corresponding observation had not been made at the Convent of the Great Saint Bernard. Here the barometer was at 21 inches 1 line, and Reaumur's thermometer at $+7\frac{1}{2}^\circ$ at 10.30 a.m.—the moment at which the observation was made on the Vélan. Reducing the degree indicated by Reaumur's thermometer to the scale of M. de Luc, *en plein air*, and this in its turn to the thermometer adapted to the barometer, one gets the following calculation:—

"Height of the barometer at the Saint Bernard, reduced to $\frac{1}{16}$ of a line	4048
Add, for the thermometrical observation ...	3
Total......	4051

"Height of the barometer on the Vélan, reduced to $\frac{1}{16}$ of a line	3440
Add, for the thermometrical observation ...	8
	3448

The logarithm of the latter number, 3448, subtracted from the logarithm of the first, and divided by 1000, brings out the height of the Vélan above the height of the Convent of the Great Saint Bernard at 669.849 : whence it is necessary to subtract 37,097, by which means we get the correct figure, indicated by the open-air thermometer, of 662.852 toises, or about 3,977 feet, as the difference between the altitudes of the Vélan and the Great Saint Bernard.

"The Hospice of the Great Saint Bernard is, according to several observations made by M. de Saussure, 6,414 feet above the level of the Lake of Geneva ; according to the observation of M. Pictet it is only 6,350 feet above it. According to the former of these results the Vélan would be 10,391 feet above the Mediterranean ; according to the second, its height would be 10,337 feet. It is higher than the Buet (9,355 feet) but lower than Mont Blanc (14,346 feet).

"M. Murith also observed, by means of the spirit level, which mountains were higher than the one on which he stood, but such observations cannot fail to be misleading when the object is a long way off, when distances are unknown quantities, and the calculations are not worked out by trigonometry. Moreover, the spirit level showed Mont Blanc to be no more than 100 fathoms higher than the Vélan, whereas it is really more than 400 fathoms higher. However, we will here report two other observations with the spirit level; they will at least let us know what mountains may be regarded as higher than the Vélan.

"The Corne du Midi, in the Haut Valais, was believed to surpass the Vélan by 25 fathoms. This mountain appears inaccessible, and rises, as it seems from a distance, in the shape of a sugarloaf.

"Between Cogne and Champorcher, in the Duchy of Aosta, is the mountain of Doudeinaz, estimated to be 30 fathoms higher than the Vélan. This mountain has iron mines in its neighbourhood.

"M. Murith remarked that, all the time he was on the Vélan he saw no insects except a wasp which, being unable to go further, died on the snow, and a butterfly which, with a rapid flight, cleared the summit of the mountain. During the whole four hours that he was climbing, he saw, in these lofty wastes, no sign of vegetation. While he was making his observations, the hunter was trying in vain to find an easier route to return by. He could discover none, and in spite of their objections to it, they had to go back as they had come. After seven hours of steep going they reached Bourg Saint Pierre, thoroughly tired out, but satisfied with the success of their attempt."

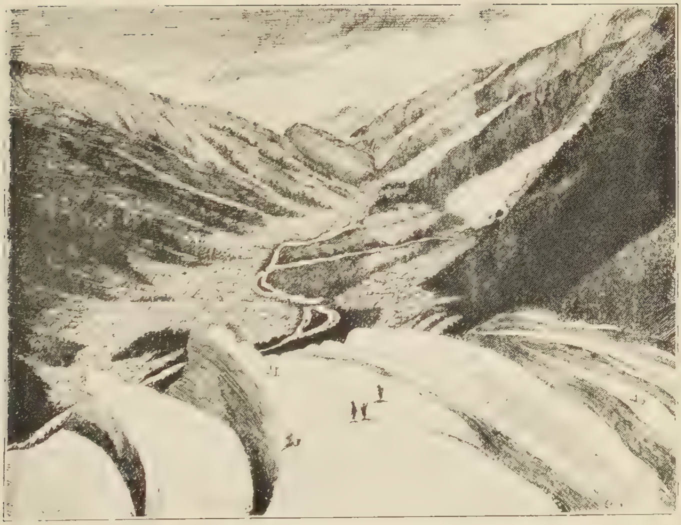
Thus Bourrit, with that bright enthusiasm for the mountaineering achievements of others which was, as we are about to see, the principal of his many amiable characteristics. It remains to be noted that the Dent du Midi, which M. Murith declared to be inaccessible, was climbed, for the first time, in 1784, by M. Clement, Curé of Champéry, and that the Vélan itself was scaled a second time about 1820 by an Englishman, and a third time, in 1826, by two monks, MM. d'Alleves and Marquis, and has since that date been frequently ascended.

CHAPTER XVII.

Marc-Théodore Bourrit—the Historian of the Alps.

The first mountaineer who, instead of climbing a mountain now and then, devoted all the best years of an active life to the climbing of mountains, was Marc-Théodore Bourrit. Born in 1735, he began life as a miniature painter. Long before his death in 1815, he had built himself a European reputation under the proud title of Historian of the Alps. In his *Itineraire de Genève*—a guide-book which he published in his later years—there is an autobiographical fragment, in which the old man recalls the moment when the Alps first laid their spell upon him. He mentions the so-called "discovery" of Chamonix by Windham and Pococke, and goes on :—

"I knew nothing about their journey ; it was from the summit of the Voirons that the view of the Alps kindled my desire to become acquainted with them ; no one could give me any information about them except that they were the Accursed Mountains, frightful to look upon, and uninhabited ; hence the precautions that I took to provide myself with bread. Two journeys made thither with two men of merit gave me quite a different impression of the place. We found no food there, it is true, except bread that was six months old, and milk and cheese and a few eggs ; there was no inn, and there were no rooms for us to sleep in except haylofts ; but we were welcomed there with the greatest kindness and the most tender solicitude by an honest widow, whose name will be remembered by posterity.



LOURRIT'S VIEW OF THE VALLEY OF CHAMONIX.

[*To face p.* 148.

After these two excursions of ours this respectable person had two spare rooms built and furnished,—rooms which have served as the model for excellent inns, the largest of which is still kept by her son.

"The aspect of the country quickly changed. My first descriptions of it, and the learned accounts of the travels of the illustrious De Saussure, who, like myself, used to go there every year, attracted strangers thither. It was then that I had the advantage of being made known to the King of the country, who never ceased to encourage my explorations, and gave a kind reception to the plans which I laid before him for the opening of it up with good roads.

"As soon as the place was made accessible to horses and carriages, one saw travellers from all countries arrive there in crowds—*savants*, botanists, physicists; first the English, then the Germans, and finally the French when they became acquainted with my *Alpes Pennines*, which were dedicated to the King of their country, or with the works of M. de Luc, or, more particularly, with those of M. de Saussure. Such have been the fruits of our discoveries, and of the pictures which have been drawn of them."

These short paragraphs give a fairly complete picture of Bourrit's life. He gave up miniature painting when the Alps marked him for their own, accepting an appointment as precentor of the Geneva Cathedral, which left him abundant leisure for his climbing. Thereafter, his manner of life was to climb in the short summer months in which climbing was feasible, and to spend the rest of the year in writing out the narrative of his travels. He also sketched and painted in water-colour. Six of his water-colours were sold to Louis XVI. for his cabinet of natural history; four were bought for Baron Necker by the Senate of Geneva; while the artist himself presented two of them to the King of Sardinia, one to the Emperor of Russia, and two to "my

Lord Clive." What has become of them all no one knows. They can hardly have been all destroyed or lost, and the probability is that they are hanging in private galleries or packed away in private portfolios, whose owners take no interest in Alpine matters, and have never heard the name of Bourrit.

It was his books, however, rather than his pictures, or even his climbing, to which we will speak later, that made Bourrit famous. There are several of these, and their full titles are as follows:—

Description des Glacières, Glaciers, et Amas de Glace du Duché de Savoye, 1773.

Description des Aspects du Mont Blanc, 1776.

Nouvelle Description des Vallées de Glace et des Hautes Montagnes qui forment la Châine des Alpes Pennines et Rhétiennes, 1783.

Nouvelle Description des Glacières, Vallées de Glace, et Glaciers, 1787.

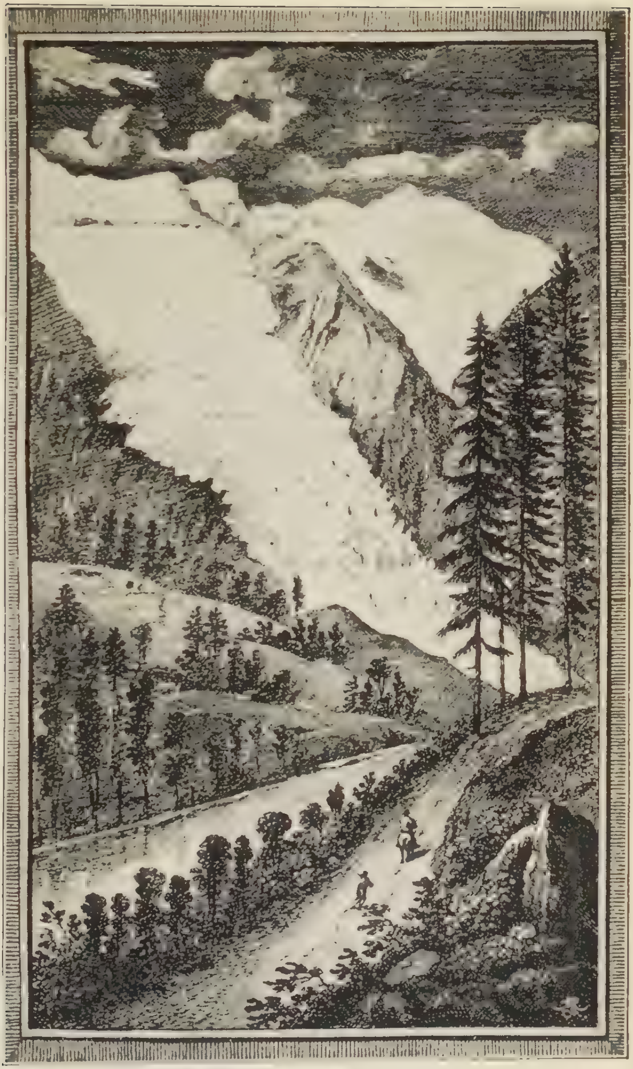
Description des Cols ou Passages des Alpes, 1803.

Itinéraire de Genève, des Glaciers, de Chamouni, du Valais, et du Canton de Vaud, 1808.[1]

It is a formidable list,—for two of the works are in three volumes; and long before the cycle was completed, the style of Historian of the Alps had been bestowed upon the writer by general acclamation. Devoid of false modesty, he accepted the title in the same spirit of serene self-satisfaction in which another great man of letters, whom Bourrit may have known, at the time when he was residing at Lausanne, assumed the style of Historian of the Roman Empire. He describes the row of little houses near the Cathedral, in one of which he lives, and adds with the grave dignity of a man

---

[1] This is the date of the edition in the British Museum. The first edition appeared earlier.



BOURRIT'S VIEW OF THE GLACIER DES BOSSONS.

[*To face p.* 150.

who is well aware of his importance, "They have little terraces, and the last of them is embellished with beautiful acacias planted for the comfort and convenience of strangers who do not wish to leave Geneva without visiting the Historian of the Alps." And he records, in a foot-note, how "Prince Henry of Prussia honoured the Author with a visit, actuated by the advice of Frederick the Great, who said to him, 'You will not forget, at Geneva, to go and see the Historian of the Alps, Bourrit.'"

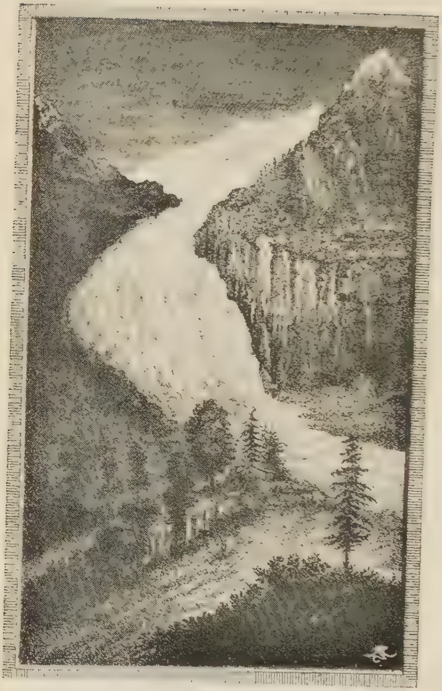
Nor was Frederick the Great the only illustrious personage whom the writings of Bourrit had impressed. In his *Description des Cols* he prints, for all the world as though it were a collection of testimonials, extracts from the letters which the notabilities of all nations had written to him. We have De Saussure declaring that the public owes him a debt of gratitude for "this lively, piquant, and truly picturesque description of things at once so interesting and so little known." We have Buffon writing, in the Reign of Terror, "Do not quit your Alps, sir, and deprive your country of one of its most estimable citizens." We have Lalande asking the place and date of his birth "in order that I may note the facts in the catalogue of distinguished persons, whose memory I desire to keep alive." We have M. Rold, Intendant of the King of Sardinia, corresponding with him about the making of new roads. We have M. Pichon, Secretary of the Society of Agriculture and Art of Boulogne-sur-Mer, offering to send him a collection of shell-fish and zoophytes in exchange for a collection of Alpine plants and insects. Last but not least, we have Princess Louise of Prussia, Reigning Princess of Anhalt-Dessau, writing, "Sir, I send you an engraving of a picture of the celebrated Angelica of Rome, in order that you may preserve some recollection of a woman who has travelled through your Alps, and whom you have, to some extent, taught to share your own lofty sentiments."

Upon the whole these letters give us a very clear and definite conception of the manner of man that Bourrit was. We see him pompous,—as the Precentor of a Cathedral should be; stately, with something of the stateliness of an Oxford don of the old school; but genial to all who showed him the respect which was his due; and particularly popular with ladies. It would have been strange, indeed, if ladies had not liked him, for no other Alpine climber has ever said such charming things about them. Wherever he goes, his diary always records his opinion of "the sex," and that opinion is invariably favourable. "The sex is very beautiful here," became a formula with him as soon as he began writing, and continued to be a formula with him after he had passed his threescore years and ten. If anything his enthusiasm increases with his age, until at last, when he is seventy-three, he is capable of this burst of rapture:—

"It was at Vevai too that I met some beauties of Fribourg, and those from Bulle surpass anything that I have ever seen: their costume is very pretty, and suits their pretty heads as well as anything could. And how lovely their complexion! How delicate their features! How charming their lips! Their eyes depict so much sensibility, and their voices are so gentle that one never tires of admiring them."

Those who have had the opportunity of comparing the beauties of Switzerland with the beauties of other countries may, perhaps, consider that the appreciation is somewhat lacking in the critical spirit proper to the historian; but it certainly is not surprising that the Princess of Anhalt-Dessau sent an engraving and a pretty letter to the historian who wrote in such a strain.

Turning to mountaineering actualities, one is constrained to admit that the Historian of the Alps was better at history



BOURRIT'S VIEW OF THE GLACIER OF GRINDELWALD.

[*To face p.* 153.

than at climbing. Seeing that he was engaged in climbing for the greater part of his active life, he has rather a poor record to show at the end of it. His enthusiasm, indeed, was unbounded; but fatigue or mountain sickness generally overtook him at the critical moment, with the result that, though he made half-a-dozen ascents of the Buet, his only other achievement was the discovery of the Col du Géant.

This expedition was made at the suggestion of the King of Sardinia. There was a tradition[1] that there was a way of getting over the mountains from Geneva to Turin in eight-and-thirty hours. The Duc de la Rochefoucauld, in his notes on his excursion to Chamonix in 1763, says that he knew the last man who made the passage and had been prevented from returning by it by the sudden opening of a fresh and exceptionally wide crevasse. The King of Sardinia suggested that the Historian of the Alps should investigate the matter, and Bourrit dutifully promised to do so "whatever might be the pains and difficulties."

Provided with a ladder fourteen feet long, a couple of hatchets—for ice axes were not yet invented—some ropes, and alpenstocks with hooked heads, the party set out from Chamonix early in the morning, and had a terrible time among the crevasses. "On every hand the snow, breaking away, revealed the abysms of which they were the untrustworthy bridges, and we could only advance with the greatest circumspection, tied to one another by strong ropes, and sounding the ground by means of our long sticks." One of the guides actually fell into a crevasse, and was only saved by the accident that he was carrying a ladder, which rested upon the two walls and held him up. But, these difficulties notwithstanding, the company finally crossed the Col, and by ten o'clock in the evening had got safely to Courmayeur, thus demonstrating the existence of the pass, if not its practical utility.

[1] This, as we have seen, is referred to in William Windham's letter.

In his attempts on Mont Blanc, Bourrit was less fortunate. In his early days he believed it to be inaccessible. "It is the greatest mistake," he wrote in 1773—eight years after De Saussure had offered a reward to any one who would get to the top—"to suppose that it would not be impossible to ascend Mont Blanc." Afterwards, however, he changed his mind so completely that we find De Saussure writing, "*M. Bourrit mettait encore plus d'intérêt que moi à la conquête du Mont Blanc*"; and ultimately we find Bourrit, at a time when he must have been nearly fifty years of age, making a desperate effort to follow in the footsteps of De Saussure and Dr. Paccard. The story is told in his *Description des Cols ou Passages des Alpes.*

Bourrit's companions, this time, were his son, an Englishman named Woodley, and a Dutchman named Campfer; the party took two tents, a ladder, and two-and-twenty guides. They used the rope, and protected themselves from snow blindness by crape veils; they slept out at De Saussure's old camp. Then:—

"Observe them on their way; all seemed to be advancing together, but, insensibly, great gaps were formed between them. Fearful of the disastrous consequences which might ensue, M. Bourrit tried every possible means of slackening the pace of those in front. In vain; they hurried on and soon were out of earshot. Then, ceasing to trouble about them, M. Bourrit thought only of the beauties that were unfolding themselves before his eyes, when he encountered several of the guides who had gone on ahead, stretched senseless on the snow, some of them lying on their backs, the others having their burdens thrown beside them. Not knowing how to help them, he redoubled his pace to catch up the porters who were carrying the water and the vinegar, when he came upon others who had just broken down. Immediately afterwards, the state of the weather added to his alarm; a storm seemed to be raging on the summit; the wind was whirling up the snow like smoke. and presently the summit of the mountain looked like a volcano. He advanced courageously, however, although he had only three guides remaining with him—Jacques des Dames, Jorasse, and Tournier l'Oiseau. If he looked behind him, he saw in the distance those whom he had left lying insensible; when he looked ahead, he saw others in the same condition. What doubled his agony was that he had to keep it to himself for fear of communicating it to his son. All that was necessary to make him the most unhappy parent in the world was that his son should be upset.

"This moment which was so dreaded came. The boy complained of a headache, and it was necessary to stop. They had already got above the rocks, and saw at their feet the great aiguilles, and the eminences of Switzerland and Milan; they were going straight for the summit. But the wind and the cold, which were becoming excessive, did not allow them to find any pleasure in the circumstance. The mountain itself was frightful; the snow whirled up by the wind circled round them and blinded them; their footprints were quickly effaced; but still they tried to follow up the imprudent persons who had gone on ahead of them, and presently they discovered them, three hundred yards away, struggling against the storm which was drifting them away from the peak which they were making for. It was a fearful moment; we saw them clutching hold of one another; they were forming themselves into two groups; the first persisted in overcoming the obstacles, and the second concluded to resign the melancholy advantage of ascending the inconsiderable elevation which still remained unsurmounted. The Dutchman, retreating in a hurry, with the hall-mark of terror on his countenance, told M. Bourrit that he believed his companions to be lost. This speech, which was intended to stop him from going any further, had the effect of spurring him on to the rescue of the Englishman and his guides. He advanced, therefore, together with his son, in the midst of the most terrible hurricane; though caked with snow, he got beyond the two little rocks which M. de Saussure had found split by the lightning. Finally, he attained to the last slope, when his son, for the second time, felt indisposed, and this circumstance put a period to his climbing."

Elsewhere Bourrit tells us that he got within ten minutes of the top; but that is as it may be; under such circumstances the temptation to inaccuracy is strong. At all events, his experience enabled him to complete the difficult trip without coming to any serious grief; while his companions suffered sadly from exposure to the cold. Dominique Balmat was nearly blinded. Cachat le Géant had his hands frost-bitten. Woodley, who, with true British pertinacy, insisted upon getting to the top of the mountain, in spite of M. Bourrit's attempts to rescue him, had frost-bites on both his feet, and had to keep them, for thirteen days, in a solution of salt and iced water.

These, however, are almost the only exciting mountaineering experiences that came in Bourrit's way, and the interest of his books is independent of them. On the whole he is less the climber of the Alps than their Historian, and, if one must be severely critical, less their Historian than their gossip. From his first book, in which he describes the local government of Cluses and Sallenches as though he were writing of some newly-discovered foreign land, to his last, in which he pours out notes, in the "mainly about people" vein, concerning the contemporary notables of Geneva, he never fails to give the interested reader the impression that here is the New Journalist, let loose for the first time in Switzerland. He gives us the full list of the early climbers of the Buet—De Luc, Pictet, De Saussure, De Luc the younger, Count Adriani, Bérenger (with two ladies), the painter Saint Ours, etc., and he has anecdotes in the best form of the paragraphist, about the inn-keepers and the distinguished visitors to Chamonix. As for example:—

"One knows the answer that she (Madame Couterant) made to Prince Poniatouski, the nephew of the King of Poland, who, when he arrived on foot, asked her if she had room for him. 'Certainly,' she replied. 'I should not like you to think that a pedestrian, unattended, was less welcome than one who travelled on horseback.' For she was, at that moment, entertaining the Archbishop of Toulouse and all his suite."

This is the new journalism, if ever there was any; and so is the paragraph which tells how Princess Hennin and M. Lenoir, of the Paris police, burst into tears at the sight of the beauties discovered from the summit of the Montanvert; and so is the following curious coincidence:—

"In 1783 the Historian of the Alps had had a correspondence with Lady Craven, but had never seen the meritorious English lady. One day, when he was on the Montanvert, with a crowd of strangers, who grouped themselves according to their nationalities, some English ladies beckoned him to them, and one of them mentioned Lady Craven. In his enthusiasm he showed her one of Lady Craven's letters, and then the lady, on her part, showed him certain letters in his own handwriting. Imagine his surprise. It was Lady Craven herself, whose beauty and graces justified the portrait which he had formed of them in his mind."

Every peak and every pass, in short, recalls some anecdotal reminiscence or other to Bourrit's mind. The

Lac de Chède reminds him how he rescued the Prince de Galitzin from a flood. At the Hospice of Saint Bernard he remembers how he once met there Hérault de Séchelles, the French revolutionist, and advised him to take holy orders. "'Do you know,' I said to him, 'the lot which awaits you? A revolution is beginning. Can you foresee where it will end? You have talents, wit, acquaintances. Both sides will flatter you, and, which ever wins you over, your position will become very dangerous. Observe, on the other hand, what advantages you would enjoy in this place of peace. Not only would you make yourself beloved there, but the sacrifice of your position and your reputation would turn out to the advantage of the establishment.' He did not believe me, and the result was that he perished miserably." The Col de Balme recalls the fate of "the young Escher," and the poetry which Bourrit wrote to be his epitaph:—

> "*Aimé de ses amis, digne d'un heureux sort,*
> *Escher aurait sans doute honoré sa patrie,*
> *Au désir de s'instruire il consacra sa vie,*
> *Et ce désir causa sa mort.*"

A passage which proves, perhaps, that it is by no means impossible for a good man to be an indifferent poet.

Writing again of *Chapiu*, Bourrit remembers how a lady mistook him for a brigand and ran away from him; how he overtook her, assured her that he meant no harm, and having thus broken the ice invited her to supper. Having occasion, a few pages further on, to mention the Brévens, he relates how he walked up it on his sixty-fourth birthday, and engaged in conversation with a young English lady, Miss Henrietta Eckershall, of Bath, who was sketching the view of Mont Blanc from its summit. And so forth and so forth, the personal element never failing, and the reader being always, as it were, buttonholed by the Historian of the Alps, and held listening to gossip concerning

Alpine celebrities so diverse as M. de Saussure and Madame de Warens, Prince Henry of Prussia, and Cachat le Géant, Jean Andre deLuc, and Dr. Paccard.

Yet, after all, the fact which most impresses the student of Bourrit's writings is the sublime enthusiasm for the mountains which breaks out even in the midst of his personal tittle-tattle about the mountaineers. The only precedent for it is found in the writings of Conrad Gesner; and even Gesner's enthusiasm seems cold when we put it by the side of his. At times, indeed, it is an enthusiasm which attains to extravagance and so provokes a smile; but it is welcome even when it is most exaggerated. Bourrit was not one of those explorers who never travelled without a barometer; nor did he care in the least at what temperature water would boil upon the mountain top. His supreme concern is the influence of mountain scenery upon the human mind; and this theme is dealt with in many striking passages. On the day, for example, on which he climbed the Brévens—

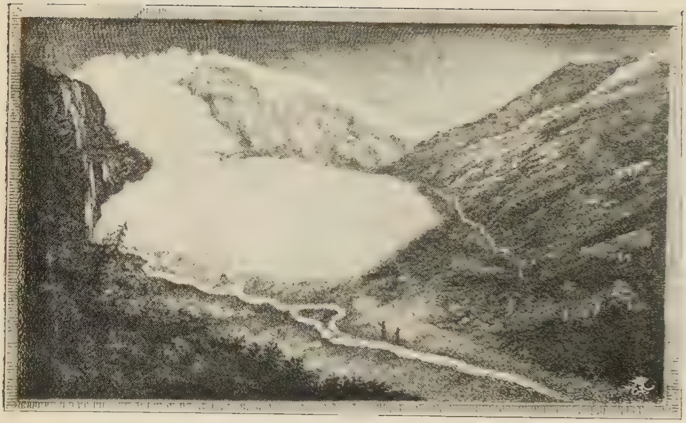
"A mountaineer," he tells us, "who had never seen our plains, our towns, and the multitude of men who dwell in them, finding himself transported to the summit of such a mountain as this, would find it difficult to comprehend the motives which had induced mankind to choose for their domicile the low-lying places of the world which would seem to him dark places and prisons and receptacles for all the filth that came from the sky and the mountains."

Then there is another striking passage in which Bourrit shows how the contemplation of the sublimities of nature reveals the ordinary interests of human kind in their true and trivial light. In consequence of certain civic disturbances, the writer had contemplated leaving Switzerland. The illustrious Buffon has sent him a letter imploring him not to do so.

"I followed his advice," he says, "and the Alps contributed more than a little to the calming of my apprehensions. In a state in which opinions are divided, enmities frequently arise. Yet, at Chamonix, I have seen persons of every party in the state, who imagined that they loathed each other, nevertheless treating one another with courtesy, and even walking about together. I have observed such people, at the foot of Charmos, forget their rivalries, help each other on their way, exchange ideas, and even be reconciled to one another. Returning together to Geneva, and encountering the reproaches of their several friends, they merely answered, in their defence: 'Go, as we have gone, to the Montanvert, and take your share of the pure air that is to be breathed there; look thence at the unfamiliar beauties of nature; contemplate, from that terrace, the greatness of natural objects and the littleness of man; and then you will no longer be astonished that nature has enabled us to subdue our passions.' It is in fact the mountains that many men have to thank for their reconciliation with their fellows, and with the human race; and it is there that the rulers of the world, the heads of the nations, ought to hold their meetings. Raised thus above the arena of passions and petty interests, and placed more immediately under the influence of Divine inspiration, one would see them descend from these mountains, each like a new Moses, bringing with them codes of laws based upon equity and justice."

This is admirable, but there is another passage which is even more characteristic. The scene, this time, is the summit of the Montanvert. Bourrit has a word to say to the guides, and he has a considerable audience of tourists. We read :—

"The Historian of the Alps, in rendering them this justice in the presence of a great throng of people, seized



BOURRIT'S VIEW OF THE RHÔNE GLACIER.

[*To face p.* 161.

the opportunity of exhorting the new guides to observe the virtues proper to their state in life. 'Put yourselves,' he said to them, 'in the place of the strangers who come from the most distant lands to admire the marvels of nature under these wild and savage aspects, and justify the confidence which they repose in you. You have learnt the great part which these magnificent objects of our contemplation play in the organisation of the world, and in pointing out their various phenomena to their astonished eyes, you will rejoice to see people raise their thoughts to the omnipotence of the great Being who created them.' The speaker was profoundly moved by the ideas with which the subject inspired him, and it was impossible for his listeners not to share in his emotion. That is intelligible enough. Can one imagine a more impressive temple, or one in which more greatness is displayed? Is it not there that man feels himself closest to his Creator? Raised, so to say, above the head of nature, he feels sensations which are perfectly new to him; his soul is purified, and all his thoughts are ennobled."

It is a striking picture this of the Precentor of the Cathedral of Geneva exhorting a company of Alpine guides in the same lofty language in which his Bishop might have exhorted a company of candidates for the rite of confirmation. It exalts the office of the mountaineer to something approaching to sacerdotal dignity; and we may well make it the last in this narrative, and so say good-bye to Bourrit, at the time when he is at the pinnacle of his glory.

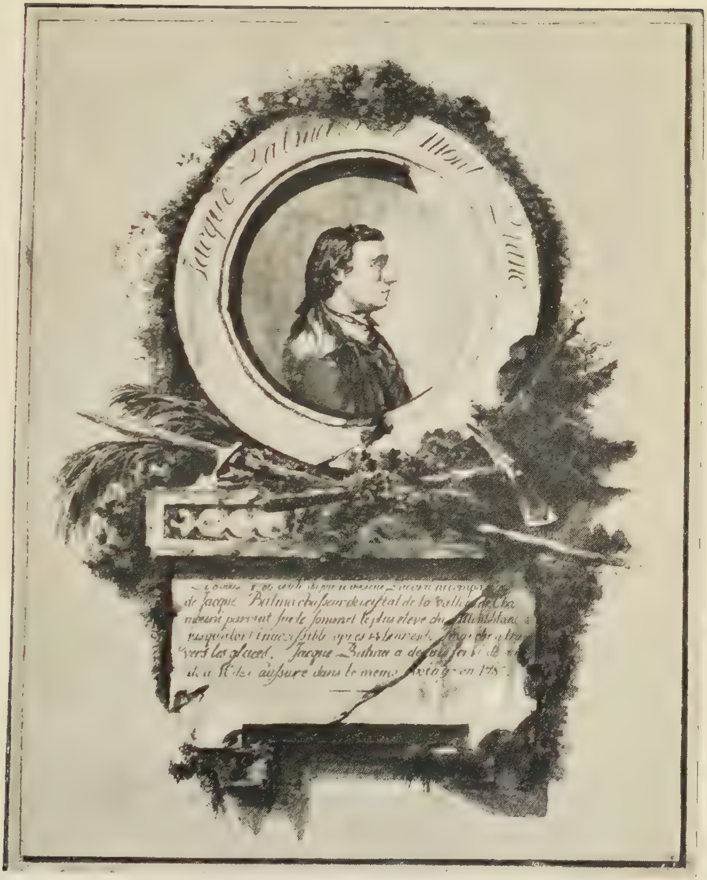
Yet mountaineers who are also Roman Catholics will feel that he has yet another title to their esteem and gratitude. For he obtained from one of their Archbishops a special dispensation exempting mountaineers from the obligation of fasting during the Lenten Season.

CHAPTER XVIII.

Jacques Balmat, the Pioneer of Mont Blanc—His great Climb—His Interview with Alexandre Dumas—His Death.

The first ascent of, and the first attempts to ascend, Mont Blanc have been very fully dealt with in Mr. Mathews' monograph, to which the reader who desires full particulars about them may be referred. Here it will suffice briefly to recite the leading facts.

The early writers, as we have seen—such writers as Fatio de Duillier and Bishop Burnet—knew of no Mont Blanc, but only of an Accursed Mountain; the name Mont Blanc appearing, for the first time, in Martel's pamphlet, in 1744. In 1760 De Saussure announced, at Chamonix, that he would reward any one who could find a way to the summit; but fifteen years passed before any Chamoniards took up the challenge. Bourrit, in his *Nouvelle Description*, tells us of an attempt made in 1775, by Michel and François Paccard, Victor Tissai, and "the son of the respectable Couteran." They got as far as the Grands Mulets, but there stopped climbing, and abandoned themselves to the pastime of collecting crystals. A more serious, but not more successful, endeavour was made by Jean-Marie Couttet, Lombard Meunier *dit* Jorasse, and Joseph Carrier, in 1783; they spent the night on the Montagne de la Côte. In the same year, and again in 1784, Bourrit himself tried. On the first occasion, the Historian of the Alps retreated, because he "saw a cloud growing round the summit"; on the second, because the weather was too cold for him.


Jacque Balmat
Mont

JACQUES BALMAT.

[*To face p.* 162.

Then follows De Saussure's unsuccessful attempt in 1785, and then Jacques Balmat comes into the story.

In the whole gallery of early mountaineers, his is the portrait that has most impressed the popular imagination. It is not merely that he has been more written about than any of the others; it is not merely that he climbed higher and more fearlessly than they did. It is also that his great ascent of the great White Mountain, in 1786, marks, as it were, the end of one epoch and the beginning of another. He began climbing, in the true spirit of the pioneer, for the sake of the honour and the glory of the achievement; he ended by climbing professionally for a stipulated daily wage. All the difference between the mountaineering of the eighteenth and the nineteenth centuries is there.

As for the story of the climb—we have a large choice of first-hand authorities from which to take it. De Saussure wrote of it; so did Bourrit; so did the Rev. William Coxe. M. Durier, in *Le Mont Blanc*, gives an account of it taken from a letter written by Jacques Balmat's nephew, Gédéon Balmat. But the one narrative which makes Jacques Balmat live again for us is that printed in the *Impressions de Voyage* of Alexandre Dumas the Elder.

It is an account which, so far as the mere mountaineering goes, positively bristles with inaccuracies. Mr. Mathews has riddled it with damaging criticisms in a manner which makes it superfluous for any one else to do the same, showing that it does grievous wrong to Balmat's companion, Dr. Paccard, and ridiculing statements which can only be attributed to the lively imagination or the defective memory of the novelist. But for all its errors—for all its arrogance—the picture remains the most convincing picture of Jacques Balmat that has yet been drawn; and one feels that one has no choice but to summarise it yet again. It is an "interview," written in the days when the interview belonged to literature, and had not yet been seized upon by journalism.

With a few quick and vigorous strokes the interviewer sketches the *mise-en-scène.* We see him stalking home from the obvious excursion to the Montanvert; Jacques Balmat, now a white-haired veteran of seventy, waiting for him on a bench before the village inn; dinner, and the old guide growing gay under the influence of the wine that sparkled in the glass.

"He did not need to be asked twice when I desired him to tell me about his perilous enterprise. Only he pushed his glass towards me and I refilled it.

"'With your permission, sir,' he said, rising from his place.

"'By all means. To your health, Balmat!'

"We clinked glasses.

"'Ah!' he said, sitting down again. 'You're a good fellow, you are.'

"Then he emptied his glass, clucked with his tongue, half-closed his eyes, and, leaning back in his chair, tried to collect his thoughts, which the last glass, it may be, had not helped to clarify.

"As for myself, I took my note-book and my pencil, and prepared to write."

An excellent beginning. It is rare nowadays to find an interviewer who dares to be so picturesque in his descriptions of the habits of the truly great. Now let us hear Jacques Balmat talk:—

"H'm. Let me see. It was in 1786. I was five and twenty; that makes me seventy-two to-day. What a fellow I was! With the devil's own calves, and hell's own stomach. I could have gone three days without bite or sup. I had to do so once when I got lost on the

Buet. I just munched a little snow, and that was all. And, from time to time, I looked across at Mont Blanc, saying, 'Say what you like, my beauty, and do what you like. Some day I shall climb you.'"

He goes on to tell how he used to lie awake at night, thinking of the mountain, and how, when he fell asleep he used to dream that he was climbing it; until his wife awoke him from his slumbers, because he was pulling at her ear under the unfounded belief that it was the bough of a tree that overhung a precipice. Then--

"I leapt out of bed and put on my gaiters.

"'Where are you going?' asked my wife.

"'To look for crystals,' I replied.

"For I did not like to tell her the truth.

"'And don't be uneasy,' I continued, 'if I am not home this evening. If I am not back by nine, I shall be sleeping somewhere in the mountain.'

"Then I took a solid stick, with a good iron tip to it, twice the thickness of an ordinary stick, and filled my gourd with brandy, and put a morsel of bread in my pocket, and started."

Balmat was not back to supper that night at nine o'clock. He spent the night in the midst of a snow field, somewhere beyond the Grand Plateau. He says:—

"About nine, I saw the shadow ascending like a thick smoke from the valley, and advancing slowly towards me. At half-past nine it reached me, and enveloped me. Nevertheless, I could still see, high up above my head, the last rays of the setting sun which hesitated to pass away from the topmost peak of Mont Blanc. I followed them with my eyes as long as they remained there. At last they vanished, and the day came to its close. Facing Chamonix, as I was, I had on my left the immense surface of snow which rises to the Dôme du Goûter, and on my right, within reach of my hand, a precipice 800 feet deep. I did not want to go to sleep for fear of rolling over it in my dreams; I sat down on my knapsack, and stamped my feet and clapped my hands to keep the warmth in them. Presently the moon rose, pale, and encircled by clouds which hid it altogether at about eleven o'clock. At the same time a rascally mist came down from the Aiguille du Goûter, which had no sooner reached me than it began to spit snow in my face. Then I wrapped my head in my handkerchief, and said—

"'Fire away! You're not hurting me!'

"At every instant I heard the falling avalanches making a noise like thunder. The glaciers split, and at every split I felt the mountain move. I was neither hungry nor thirsty, and I had an extraordinary headache, which took me at the crown of the skull, and worked its way down to the eyelids. All this time, the mist never lifted. My breath had frozen on my handkerchief, the snow had made my clothes wet; I felt as if I were quite naked. Then I redoubled the rapidity of my movements, and began to sing in order to drive away the foolish thoughts that came into my head. My voice was lost in the snow; no echo answered me. I held my tongue, and was afraid.

"At two o'clock the sky paled towards the east. With the first beams of day I felt my courage coming back to me. The sun rose, battling with the clouds which covered the mountain-top; my hope was that it would scatter them; but, at about four o'clock, the clouds got denser, and I recognised that it would be impossible for me, just then, to go any further."

Before returning, however, Balmat reconnoitred the glaciers, and thought out his way to the top. He had no sooner got home than he saw François Paccard, Joseph Carrier, and Jean-Michel Tournier, starting for the mountains. At their request, he agreed to accompany them, and give them the benefit of his experience. So he merely went home to change his stockings, and was off again with his companions, without stopping to rest, at eleven o'clock in the evening. They slept out, and in the morning were joined by two other guides—Pierre Balmat, and Marie Couttet. Hopeless of attaining their goal, they all turned back, leaving Balmat once more alone upon the mountain, and once more he spent the night there.

"I laid down my knapsack on the snow, and drew my handkerchief over my face like a curtain, and made the best preparations that I could for passing a night like the previous one. However, as I was about two thousand feet higher, the cold was more intense; a fine powdery snow froze me; I felt a heaviness and an irresistible desire to sleep; thoughts sad as death came into my mind, and I knew well that these sad thoughts and this desire to sleep were a bad sign, and that, if I had the misfortune to close my eyes, I should never open them again. From the place where I was I saw, ten thousand feet below me, the lights of Chamonix, where my comrades were warm and tranquil, by their firesides or in their beds. I said to myself—

"'Perhaps there is not a man among them who gives a thought to me. Or if there is one of them who thinks of Balmat, no doubt he pokes his fire into a blaze, or draws his blanket over his ears, saying—

"'"That ass of a Jacques is wearing out his shoe-leather." Courage, Balmat!'"

Balmat had courage enough. He could not climb the mountain just then, for he was worn out with fatigue

But he returned to the attack three weeks afterwards, this time with only one companion, Dr. Michel Paccard. Of the mutual relations of the two climbers something more will have to be said presently, for each of them claimed afterwards to have been the guiding spirit of the enterprise. Here it suffices to tell the story as Balmat told it to his interviewer—

> "I went to see Paccard, and I said to him—
>
> "'Look here, doctor. Are you afraid of cold, and snow, and precipices? Speak out and tell me like a man!'
>
> "'With you, Balmat, I am afraid of nothing,' Paccard answered.
>
> "'Very well,' said I, 'now is the moment to climb the mole-hill.'
>
> "The doctor said that he was ready, but at the moment when he closed his door, I think his courage failed him a little, for he could not get the key out of the lock.
>
> "'Come now, Balmat,' he said. 'Wouldn't it be better to take two other guides with us?'
>
> "'Certainly not,' I answered. 'I will make the ascent alone with you, or you can make it in other company. I wish to be the first at the top and not the second.'
>
> "He reflected for a moment, withdrew his key, put it in his pocket, and followed me mechanically with a hanging head. A minute later, he shook his ears, and said—
>
> "'All right, Balmat. I trust myself to you.'"

They said good-bye to their wives, and started at five o'clock in the evening. They slept at the top of the Montagne de la Côte, were off again at about two in the morning, and got into the Glacier de Taconnay.

"The doctor's first steps on this sea, in the midst of these immense crevices in the depths of which the eye loses itself, and on the bridges of ice which one feels cracking beneath one, and which, if they collapsed, would carry you to destruction with them, were a little tottering. But, little by little, he reassured himself by seeing how I got on, and we got out of the place, safe and sound. Then we began to climb the Grands Mulets, which we soon left behind us. I showed the doctor the place where I had passed my first night on the mountain. He made a very significant grimace, and kept silence for ten minutes. Then, stopping suddenly—

"'Do you think, Balmat, that we shall get to the top of Mont Blanc to-day?'"

Depreciation—not to say ridicule—of Paccard is, in short, the note of Balmat's narrative. A little further on, we are asked to believe that the doctor was discouraged because his hat blew off, and lay down on his stomach and tried to crawl up the mountain. The story is not consistent with the little that we know about the doctor, and it was probably by Dumas that that particular picturesque detail was invented. Balmat proceeds, however, in the same tone:—

"After I had exhausted all my eloquence, and saw that I was only losing my time, I told him to keep moving about, and warm himself as best he could. He heard without understanding, and kept answering 'Yes, yes,' in order to get rid of me. I perceived that he must be suffering from cold. So I left him the bottle and set off alone, telling him that I would come back and look for him.

"'Yes, yes,' he answered.

"I advised him again not to sit still, and started off. I had not gone thirty steps before I turned round and saw that, instead of running about and stamping his feet, he had sat down with his back to the wind. It was a precaution—of a sort.

"From that minute onwards the track presented no great difficulty; but as I rose higher and higher the air became more and more unfit to breathe. Every few steps, I had to stop like a man in a consumption. It seemed to me that I had no lungs left, and that my chest was hollow; then I folded my handkerchief like a scarf, and tied it over my mouth, and breathed through it; and that gave me a little relief. However, the cold gripped me more and more; it took me an hour to go a quarter of a league. I looked down as I walked; but finding myself in a spot which I did not recognise, I raised my eyes and saw that I had at last reached the summit of Mont Blanc.

"Then I looked around me, fearing to find that I was mistaken, and to catch sight of some aiguille, or some fresh point above me; if there had been, I should not have had the strength to climb it. For it seemed to me that the joints of my legs were only held in their proper place by my breeches. But no,—it was not so. I had reached the end of my journey. I had come to a place where no one—where not the eagle or the chamois—had ever been before me. I had got there alone, without other help than that of my own strength and my own will. Everything that surrounded me seemed to be my property. I was the King of Mont Blanc—the statue of this tremendous pedestal.

"Then I turned towards Chamonix, waving my hat at the end of my stick, and saw, by the help of my glass, that my signals were being answered."

Balmat says that he went back to fetch the doctor, whom he found in a dazed, half-conscious state, hardly interested at all in the intimation that the top of the mountain was quite near. He woke him up, however, and made him climb there. It was past six when they reached the summit, and they stayed there three and thirty minutes.

"It was seven o'clock in the evening; we had only two and a half hours of daylight left; we had to go. I took Paccard by the arm, and once more waved my hat as a last signal to our friends in the valley, and the descent began. There was no track to guide us; the wind was so cold that even the snow on the surface had not thawed; all that we could see on the ice was the little holes made by the iron points of our sticks. Paccard was no better than a child, devoid of energy and will power, whom I had to guide in the easy places and carry in the hard ones. Night was already beginning to fall when we crossed the crevasse; it finally overtook us at the foot of the Grand Plateau. At every instant Paccard stopped, declaring that he could go no further; at every halt I obliged him to resume his march, not by persuasion, for he understood nothing, but by force. At eleven we at last escaped from the regions of ice, and set foot upon *terra firma;* the last afterglow of the sunset had disappeared an hour before. Then I allowed Paccard to stop, and prepared to wrap him up again in the blanket, when I perceived that he was making no use whatever of his hands. I drew his attention to the fact. He answered that that was likely enough, as he no longer had any sensation in them. I drew off his gloves, and found that his hands were white and as it were dead; for my own part I felt a numbness in the hand on which I wore his little glove in place of my own thick one. I told him we had three frost-bitten hands between us; but he seemed not to mind in the least, and only wanted to lie down and go to sleep. As for myself, however, he told me to rub the affected part with snow, and the remedy was not far to seek. I commenced operations upon him, and concluded them upon myself. Soon the blood resumed its course, and with the blood the heat returned, but accompanied by acute pain, as though every vein were being pricked with needles. I wrapped my baby up in his blanket and put him to bed under the shelter of a rock. We ate a little, drank a glass of something, squeezed ourselves as close to each other as we could, and went to sleep.

"At six, the next morning, Paccard awoke me.

"'It's strange, Balmat,' he said 'I hear the birds singing and don't see the daylight. I suppose I can't open my eyes.'

"Observe that his eyes were open as wide as the Grand Duke's. I told him he must be mistaken, and could see quite well. Then he asked me to give him a little snow, melted it in the hollow of his hand, and rubbed his eyelids with it. When this was done, he could see no better than before; only his eyes hurt him a great deal more.

"'Come, now. It seems that I am blind, Balmat. How am I to get down?' he continued.

"'Take hold of the strap of my knapsack, and walk behind me; that's what you must do.'

"And, in this style, we came down and reached the village of La Côte.

"There, as I feared that my wife would be uneasy about me, I left the doctor, who found his way home by fumbling with his stick, and returned to my own house. Then, for the first time, I saw what I looked like.

"I was unrecognisable. My eyes were red; my face was black; my lips were blue. Whenever I laughed or yawned the blood spouted from my lips and cheeks; and I could only see in a dark room."

So ends Jacques Balmat's story. It is pervaded by a spirit of brave braggadocio not unworthy of d'Artagnan; but the responsibility for that should doubtless rest upon the broad shoulders of the illustrious interviewer, whose final touch is a triumph of the journalistic art.

"'And did Dr. Paccard continue blind?'

"'Blind indeed! He died, eleven months ago, at the age of seventy-nine, and could still read without his spectacles. Only his eyes were diabolically red.'

"'As the consequence of his ascent?'

"'Not a bit of it.'

"'Why, then.'

"'The old boy was a bit of a tippler.'

"And so saying, Jacques Balmat emptied his third bottle."

And so we come to the question: How much of the credit for the first account of Mont Blanc is due to Jacques Balmat, and how much to his companion? But that question must be dealt with in a separate chapter.

CHAPTER XIX.

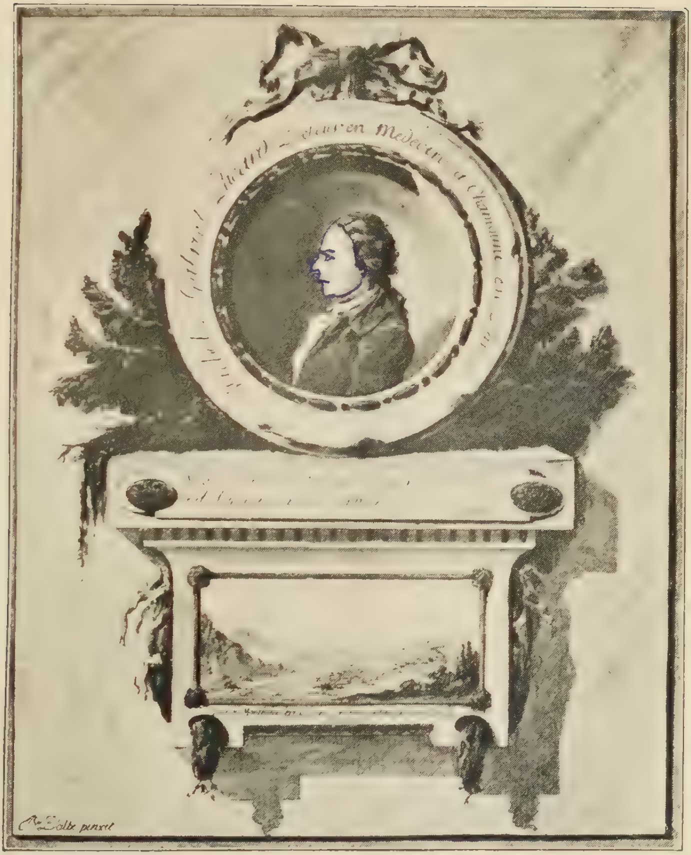
The Case for Dr. Paccard—His Lost Book—The Controversy in the *Gazette de Lausanne*—The Later Years of Jacques Balmat.

Balmat's story, we have seen, represents Dr. Paccard as a perfect fool; the guide declares that he hauled the amateur to the summit like a sack of coals. According to the bibliographers, Dr. Paccard himself wrote an account of the climb, under the title :—

Premier Voyage fait à la cime de la plus haute montagne du Continent.

One would give a good deal for a glimpse of that lost book (or pamphlet), but unfortunately it cannot be found. It has, for many years, been on the *desiderata* list of the principal European Libraries; it has been advertised for in all the Alpine journals; but the quest has been in vain. The collectors have failed, not only to find the book, but even to find any one who has ever seen it. So that it seems permissible to raise the question: Did Dr. Paccard ever write such a book? Or have the bibliographers invented it for him? Let us weigh the evidence.

Any one trying to trace the history of the book will naturally start with the *Swiss Travel and Guide Books* of Mr. Coolidge. From this he will be referred to *Le Mont Blanc* by M. Durier. But even M. Durier's information is not first-hand. His authority, apparently, is Quérard, in whose *La France Littéraire*, published in 1836, we find the following entry :—



DR. PACCARD. [*To face p.* 174.

"PACCARD (*Michel*) *docteur médicin et membre correspondant de l'Académie des Sciences de Turin; né à Chamonix, commune et vallée du Haut Faucigny.*

"*Voyage* (*premier*) *fait à la cime de la plus haute montagne du continent* (*le Mont Blanc*), 1786.

"*Paccard fut le premier qui parvint, le* 8 *Août* 1786, *avec Jacques Balmat, à la sommité du Mont Blanc, regardée alors comme inaccessible. La brochure qu'il a publiée contient la relation du son ascension et des difficultés de son entreprise.*"

The absence, here, of any information as to the size, *format*, *etc.*, of the book, makes it more than doubtful whether Quérard had ever seen it; and the only earlier reference, as to which there can be no misunderstanding, is in Leschevin's *Voyage à Genève et dans la Vallée de Chamounix*, published in 1812. In all probability Quérard copied Leschevin, whose inclusion of the book in a list of works which he claims to have consulted is, therefore, our only ultimate authority for the statement that such a book ever existed. That is to say, our earliest authority for the book is twenty-six years later than the alleged date of its publication.

The evidence on the other side is mainly of the negative and circumstantial order; but it is hardly the less weighty upon that account. It resides mainly in the fact that the book is not mentioned by contemporary writers, who, if it had existed, must have known of its existence, and who, so far as we can see, had every reason for referring to it, and no motive whatever for ignoring it. Bourrit says nothing about it; De Saussure says nothing about it.[1] Even Lalande, the French astronomer, who visited Chamonix in 1796, and made Dr. Paccard's acquaintance, omits all mention of any such pamphlet in the long article in which he tells the story of Mont Blanc to the readers of the *Magasin Encyclopedique.* Nor is there any allusion to any such pamphlet in the reports of the proceedings of the Turin Academy of Sciences, nor does it figure in Bouchier de la Richarderie's bibliography of books of travel, which was published in 1808, and is very thorough in its handling of the literature of Alpine exploration. In view of the importance which all these writers would naturally have attached to a pamphlet by such a man on such a subject, this conspiracy of silence on their part is significant, if not, indeed, absolutely conclusive.

---

[1] De Saussure does, indeed, speak of an "account" of the climb by Dr. Paccard; but this in all probability refers to the article in the *Gazette de Lausanne* referred to in the following paragraph.

It remains, of course, to account for the entry, above referred to, in Leschevin's book; but that is not, perhaps, impossible. A suggestion may, at all events, be offered. We know that Dr. Paccard wrote an article about his ascent, which appeared in the *Gazette de Lausanne*, on February 24th, 1787. It is conceivable that Leschevin may have heard of this newspaper article, have been under the impression that it was a pamphlet, have made a mistake about the date, and so have entered it in his list of books consulted. Bibliographers, of course, do not often make such mistakes, but Leschevin was not a bibliographer by profession; and it is quite certain that an author here and there is capable of claiming to have consulted books which he only knows by hearsay. At any rate, the theory that an error was thus originated, and a wild-goose chase thus started, is quite as reasonable as the theory that the pamphlet was published and then disappeared, leaving no trace behind.

The purpose of Dr. Paccard's newspaper article was, so to say, to put Jacques Balmat in his proper place. "Paccard," the writer says, "pressed him to go on when he wanted to turn back. Balmat was useful to him, doubtless, but not in attaining the summit. . . . Balmat did *not* get there the first—Dr. Paccard has certificates which prove this."

The letter had no sooner appeared than the Historian of the Alps burst into the arena, and did battle on Balmat's behalf, contradicting Paccard flatly, and inviting the production of the said certificates. Paccard produced them, and they ran as follows:—

"I, the undersigned Jacques, son of J. T. Balmat, of Pélerins, Commune of Chamonix, declare to all those it may concern that I offered my services to Dr. M. Paccard, having learned that he wished to make a new attempt on Mont Blanc, in continuation of those which he had already made, and knowing that his own guide was away.

"As he proposed to go by the side of the Montagne de la Côte, which we thought was an impractical route, I had doubts as to the success of the enterprise; but he told me that he had examined this direction, for the space of three years, with his telescope.

"I declare that, except for the steady manner in which he proceeded, we should never have succeeded; that he continually encouraged me; that he shared my labour, and sometimes himself carried a portion of the things he had given me to carry; that when I wanted to come down, as I had promised, to be of assistance to my wife and a child who was ill, he regarded my representations as excuses.

"He would not follow the route which we followed on our last attempt, but kept straight on to the middle of the plain, which is above the Glacier des Bossons. He himself traced for me this new route, by going before me, up a steep slope, which is at the foot of the great Mont Blanc. As he had always said that we should sleep out on the mountain, he made me look for a camping place, as soon as we got to the top of this slope, whilst he ascended to examine the rocks. Not finding any, he determined to ascend the same evening to the summit, the object we were in pursuit of. He called to me, and I followed. At the same moment I saw something dark pass above me—it was his hat, which the wind carried away with such velocity that we saw it no more.

"The doctor continued to ascend nimbly. We came to a little rock, behind which I sheltered myself from the wind, whilst he examined it, and made collections. We were near the top of the mountain. I bore away to the left to avoid a snow slope which Mons. Paccard courageously scaled to get straight to the summit of Mont Blanc. The detour I made delayed me somewhat, and I was obliged to run to be nearly as soon as he was on the aforesaid spot.

"He made experiments there, and observations, which he wrote down. He left a mark there, and we then came down at once, quickly, following our track, and looking for it in turn. We arrived at the top of the Montagne de la Côte, where Mons. Paccard slept, on the side exposed to the glacier.

"He fed me, he paid me, and handed over money which had been given to him to transmit. In witness of which I sign this at the Bourg of Chamonix, this 18th of October, 1786, in presence of the undersigned witnesses.

"JACQUES BALMAT.

"Countersigned by Joseph Pot and Joseph Marie Crussa, the requisite witnesses, called expressly."

"SECOND TESTIMONY OF THE AFORESAID J. BALMAT.

"I, the undersigned, certify having received of Dr. Paccard, a new crown on the part of Baron de Gersdorff, on August 10, 1786, at the same time as my wage.

"JACQUES BALMAT.

"Chamonix, 25th March, 1787."

Mr. Whymper suggests, in his guide to Chamonix, that Jacques Balmat signed these depositions without fully comprehending the nature of their contents. Possibly he did. Nothing that is known of him is inconsistent with the theory that he was thickheaded enough to do so. But one point must be noted. The date of the first of the depositions—which is the important one—is anterior by many months to that of the acrimonious correspondence in the *Gazette de Lausanne.* And that, of course, is strong presumptive evidence of its *bona fides*—evidence, in fact, which can only be seriously shaken by the suggestion that the doctor, defying the risk of detection, took the liberty of tampering with the date.[1]

This, however, is all that we know of the controversy; and the rights of it, it is pretty clear, can never be certainly determined. Lalande is doubtless as trustworthy a witness as we can find, and it may be well to supplement the two stories by the citation of the few sentences in which, without prejudice, he sums the matter up.

> "M. Paccard avers," he says, "that he had been trying to make this excursion for three years, and had sketched out three routes, when Balmat made him prefer the one which he followed. They slept, on the evening before their climb, in the hollow of a rock, six hundred fathoms above the valley, which is itself five hundred and thirty fathoms above the sea.
>
> "On the following day they spent fourteen hours in ascending over the snow, dragging themselves along on sticks, with which they bridged the crevasses, when they discovered them by sounding; but sometimes they sank into the snow up to their waists. The snow so blinded them that, on their way back, they could see nothing, and Paccard's ophthalmia was of long duration.

---

[1] Dr. Paccard's diary, now in the hands of Adolphe Balmat, from which Mr. Mathews quotes freely in *The Annals of Mont Blanc*, though interesting in other respects, throws no fresh light upon this branch of this subject.

"They stayed half an hour on the summit, and got down in four hours, and slept nine hundred fathoms lower. The journey brought great honour to the citizen Paccard,—so much so that, in the verses of Mdlle. Chapuis, one met these lines:—

'De Saussure à la cime ut arrivé trop tard,
Et déjà le Mont Blanc etait le Mont Paccard.'

"But Jacques Balmat, to whom the world was *principally indebted*, was not forgotten. The King of Sardinia caused a gratuity to be sent to him, and he also received a present from the Baron de Gersdorff, who opened a subscription for him in Haute-Lusace. The English who used to visit the place annually to the number of two hundred, and who had often offered a reward to the man who would show the way to the top of the mountain, did not follow this example, in spite of the pressure brought to bear upon them by M. Bourrit."

Of the remainder of Jacques Balmat's career there is not a great deal that need be said. He became a professional mountain guide—Jacques Balmat *dit* Mont Blanc was the name by which he was currently referred to in this capacity. He saved a certain amount of money, and then lost it. Desiring to invest it to the best advantage, he entrusted it to two perfect strangers whom he met on the high-road, and who informed him that they were bankers, and would take care of it for him, and pay him five *per cent.* for it. They did not pay him the promised interest, but they took such good care of the capital that Jacques Balmat never saw either it or them again. Then, with the view of accumulating a fresh provision for his age, he listened to idle rumour, and sought to find a gold mine among the snow fields. He found none, but he found his death instead,—traversing a narrow, slippery ledge, and then disappearing over a precipice. His body was never found, though diligent search was made for it both at the time of the accident and on a certain memorable day, nineteen years afterwards.

"Auguste Balmat, one of the great nephews of Balmat," says Michel Carrier,[1] "well-known amongst the guides for his bravery, desired to be let down by a rope, and began the descent by the side, slipping every moment on the rotten schist, which broke away under his feet. He had not gone far in this adventurous and daring enterprise, when he gave the signal agreed upon, to be drawn up, and was received by his companions, and embraced by them, as they knelt on the last ledge of the precipice, as one does by an open grave. It was in truth an eternal tomb, consecrated by the fatal accident."

---

[1] In his *Notice Biographique sur Jacques Balmat.*

CHAPTER XX.

Father Placidus à Spescha, the Pioneer of the Tödi Group.

In Ebel's handbook for the use of travellers in Switzerland, the first edition of which appeared in 1804, the compiler acknowledges his indebtedness, for information about the high Alps, to Father Placidus à Spescha. In the *Jahrbuch* of the Swiss Alpine Club, and in Studer's *Ueber Eis und Schnee*, this same Placidus à Spescha is credited with the first ascents of the

Stockgron (11,411 ft.), in 1788,
Rheinwaldhorn (11,148 ft.), in 1789,
Piz Urlaun (11,063 ft.), in 1793,

as well as of the Piz Cotschen, the Piz Ault, the Piz Ginf, the Piz Avat, the Piz Muraun, the Piz Cristallina, the Scopi, and various other eminences of less importance. It follows that no account of the Early Mountaineers can be complete without some reference to the exploits of Father Placidus, albeit, unfortunately, the lack of information makes it impossible to give any full history either of the man or of his achievements. Our only authority, for all practical purposes, is Dr. Theobald, of Chur, who devotes a chapter to the Reverend Father in his monograph on the Bundner Oberland. But Dr. Theobald expressly tells us that he is only writing out what he has heard people say, and what is generally accepted as the truth. So that it as a case of making the best of the information that we have, and lamenting that we have no more.

Placidus à Spescha was born at Trons in 1752, so that he was just ten years older than Jacques Balmat, and just twelve years younger than Horace Benedict de Saussure. As a lad, he looked after his father's flocks and herds, collected crystals, and displayed agility among the rocks,—which, his mother declared, was not surprising, seeing that the sun was in Capricornus at the time of his birth. For what reason the life of the cloister appealed to him we do not know; but in all probability his determining motive was a desire to have leisure for study rather than any invincible religious zeal. However that may be, the lad joined the order of Friars which possessed the monastery of Disentis, and was, in 1776, sent to Einsiedeln to complete his education. Here were a library, cabinets of minerals, collections of antiquities, brethren whose erudition was at least as conspicuous as their piety. Placidus lived under these influences for six years, and the result was that, when he returned to Disentis, the zeal and punctuality with which he performed the ceremonial duties of his calling did not save him from those vague charges of atheism and the like, which the narrow-minded of whatever creed are seldom slow to hurl at the head of any one who seems inclined, or even able, to expose their intellectual nakedness.

One can imagine that it was largely for the purpose of escaping from the uncongenial company of his fellow friars that Father Placidus, at this period of his life, resumed the practice of mountaineering. It may also have been that the controversial trivialities with which they troubled him seemed more trivial than ever upon the hill-tops, and that he repaired to the hill-tops with the deliberate aim of enjoying the sense of their insignificance.[1] But he was

---

[1] This sentiment runs through all the Alpine literature. We have met with it in Bourrit; and a most striking example of it is quoted by Clissold from a Chamonix hotel-book.

"Si j'etais reine, je déposerois ma couronne au pied de ce mont;

also under the influence of the poems of Haller, and the scientific writings of De Saussure and De Luc. The latter stimulated the curiosity of an intellect that had always been curious; and he climbed to gratify it as well as to procure the pleasure which Alpine travel brings to every man who is capable of receiving it. It was at this period of his life—between 1783 and 1799—that most of his more notable ascents were accomplished.

His career, however, was to be a chequered one; worse calamities than the bigoted slanders of silly monks were to befall him. The stir of the forces which the French Revolution had set in motion at last made itself felt in Graubunden, with the result that the French imposed a fine of 100,000 francs, upon whatever pretext, on the Convent of Disentis. Then the brethren experienced the advantage of having a man among them whose interests were wider than the cloister, and who knew how to speak with his enemies in the gate as well as to recite the formulæ of praise and prayer. Placidus obtained from the French general a reduction of 20,000 francs from the impost; but his ungrateful colleagues, instead of thanking him for the service, declared that his success proved him to be a Jacobin at heart.

Then followed a fresh misfortune. There was a rising against France in the Oberbund. Father Placidus was absent from Disentis at the time, but hurried home only to find the Convent a smoking heap of ruins, and all his own possessions—more particularly all his notes and manuscripts—destroyed. He wandered away on foot to Lugnetz, and for several months found an asylum with the parish priests of Vrin and Rumein. Nor was he more fortunate when, at length, the French retired from Graubunden, and

---

tant je trouve les vanités et les grandeurs du monde petites et périssables auprès de ce monument de la puissance eternelle."

the Austrians gained the upper hand. Then he was arrested because he had once preached a sermon on the text, "Put not your trust in princes," and was believed to have thus exhibited contempt for contemporary rulers in general, and for the Emperor of Austria in particular. It was in vain that he protested that his discourse had had no personal bearing whatsoever. He was packed off as a prisoner to Innsbruck, and kept there for eighteen months, though he was well received at the monastery of Servite, and allowed to enjoy a certain amount of mountaineering in the Tyrol.

He had half a mind to stay there after his liberty was restored to him, but his love of his country was too strong to let him to do so. He returned to it—but only to encounter persecution. A treatise which he had written on Nature and Theology was stolen from him and made the ground of an accusation against him. As a punishment, his books and manuscripts were taken away from him, and he was forbidden to wander in the mountains, and enjoined to keep silence about his sufferings. He fell ill, and when he recovered sought a more congenial sphere of usefulness as a parish priest. In 1809 we find him in this capacity at Selva, in Tavetsch. Later, he returned to Trons, and though now more than seventy years old, continued to climb the mountains. Two attempts on the highest peak of the Tödi belong to the year 1824. He lived to be eighty-two, and the last words that he spoke were, "Now the ruins are falling in."

Such was Father Placidus; or rather, to be strictly accurate, one had better say, such is all that we know of Father Placidus. His life is a singularly sad one; and one can see that other things must have contributed to its melancholy besides the slings and arrows of outrageous fortune to which he was exposed. Those constant charges of heresy must have meant more than appeared upon the surface; for, in the Roman Catholic Church, heresy is not only a very grave, but also a very clear and definite thing. Either, one is a heretic or one is not; there is no middle course. One suspects, therefore, those doubts, and difficulties, and spiritual struggles which seem so serious to the men who take things seriously. The mountaineer who missed his way and strayed into the priesthood must have felt sometimes that, in trying to express God in a creed, he was in the position of the gardener who should endeavour to plant an oak in a flower-pot. And, feeling this, he must have also felt, from time to time, that his position was a false one, and that, perhaps, after all, his persecutors had the advantage over him in the matter of logic and sincerity.

Did the mountains yield him comfort in these hours of his depression, preaching him their eternal sermon on the greatness of nature and the insignificance of man? Was it with him, as with Goethe, who declared that when he first stood upon a mountain peak, the words that rose unbidden to his lips were: "Lord, what is man that Thou art mindful of him, or the son of man that Thou so regardest him?" One would fain hope so, and one has almost the right to think so from the words—almost the only words of his that have been preserved to us—in which Father Placidus, in his old age, summed up his serene philosophy of life.

"When I carefully consider," he wrote, "the fortune and ill-fortune that have befallen me, I have difficulty in determining, which of the two has been the more profitable, since a man without trials is a man without experience, and such a one is without insight—*Vexatio dat intellectum.* For my part, speaking honestly, I must acknowledge that my ill-luck has been more useful to me than my good, since by the first I have gained more knowledge of God, of my neighbours, and of myself. In my opinion, the true fortune of man in this world lies in right thinking and acting, acquiring knowledge, and preserving a clear conscience."

A good faith truly, and a faith in which a man may be content to live and die, even though it be something less than the faith of the Roman Catholic, or of any other, Church.

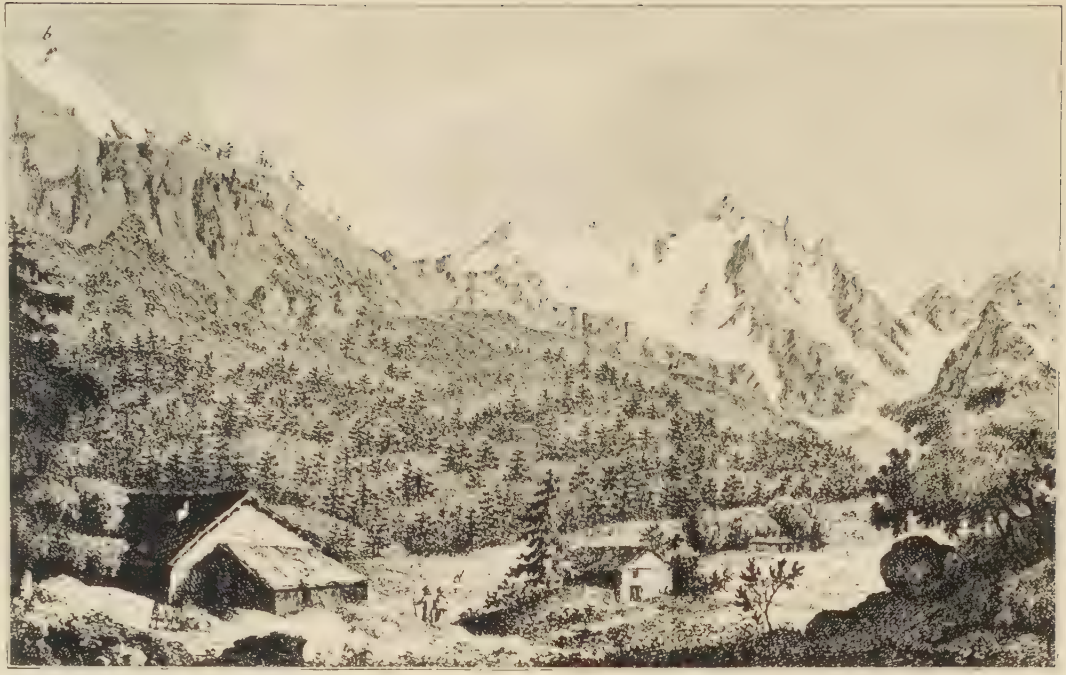
CHAPTER XXI.

The Pioneers of Monte Rosa—John Joseph Beck—Count Morozzo—Giordani—Henri Maynard—Parrot, Zumstein, and Welden.

Our friend Scheuchzer seems to have been the first Swiss writer who recognised the existence of Monte Rosa, otherwise known, in those days, as Mons Silvius. He heard of it, while panting, in pursuit of knowledge, up the Valley of the Rhone, and mentions that "a stiff accumulation of perpetual ice" is attached to it. But he did not go to look at it, and, from what we know of him, we may take it that he would not have tried to climb it if he had.

The passes which skirt the mountain, and from which views of it are commanded, were, however, known to travellers from a much earlier period. The Schwarzberg Weissthor appears to have been used by pilgrims from quite early times; though the belief prevailed that any one who traversed it for purposes other than devotional was likely to come to grief. The Monte Moro, again, was fortified, by order of the Duc de Savoie, in 1687, to resist the return of the Vaudois; the ruins of the fort—intended to hold a garrison of seventy men—were seen by the brothers Schlagintweit. And it is, of course, to be presumed that the German-speaking populations of Macugnaga and Gressoney came to their new homes by way of some one or other of the high passes connected with the Monte Rosa group.

As regards mountaineering, in the strict sense of the term, we have already seen that the balance of probability points to Leonardo da Vinci as the pioneer. A great gap



DE SAUSSURE'S VIEW OF MONTE ROSA. [*To face p.* 188.

follows. Before the days of diligent research, it was supposed to extend until the advent of Frédéric Parrot, in 1817; but facts have since been found which fill up a certain portion of the intervening period. De Saussure, it will be remembered, visited Macugnaga in 1789. He did no climbing there worth speaking of, his only ascent being that of the Pizzo Bianco (10,552 ft.); and he soon moved on, declaring that the inhabitants were inhospitable. During his stay, however, he heard a mysterious story of a certain happy valley, hidden away behind the glaciers, where fruit trees bloomed and chamois repaired to graze in winter time; and he speaks, somewhat vaguely, of an attempt made, some years previously, by a band of peasants of the neighbourhood to discover it. Though he did not know it, the philosopher was here on the track of one of the most interesting of all the early Alpine expeditions—an expedition which compares very favourably with those that were being simultaneously undertaken by the peasants of the Valley of Chamonix. The full story of it was told, for the first time, in the *Bullettino del Club Alpino* for 1884.

The hero of this adventure was Jean Joseph Beck, a domestic servant in the employ of Jean Pierre Squindo, landed proprietor of Noversch. When he was a lad of eighteen, his master took him to pass the winter at Alagna. In one of the inns there he heard a number of young peasants projecting a journey of exploration across the glaciers in quest of the alleged happy valley. They talked aloud of the necessity of providing themselves with fur coats, nailed boots, ropes, alpenstocks, and food; and Jean Joseph Beck listened quietly and resolved to be beforehand with them. It should be a race between Gressoney and Alagna, and Gressoney should win. He took his brother and another friend into his confidence. They approved his plans, but thought a larger party desirable. Two fresh recruits were found in Jean Etienne Lisge (Lisco) and Jean Joseph Zumstein (Delapierre), who declared that they too had heard of this happy valley, uninhabited and unexplored, and thought that it was high time to go and look for it. For the rest, it is perhaps better to quote Beck's narrative than to paraphrase it:—

"There we were, then (he writes), five men of one mind. It remained to choose a sixth. But what we wanted was an amateur, a man of learning, so that we might be a match for our Alagna friends. Our choice fell upon M. Nicolas Finzens (Vincent), and I undertook to tell him secretly of our scheme. I told him, in confidence, therefore, all that I had learnt at Alagna, and explained to him the project which we of Gressoney had formed. M. Nicolas Finzens welcomed my proposal with obvious pleasure; then he said: 'On Sunday, after dinner, you must all of you come and see me. But be careful to arrive, one at a time, at intervals of a quarter of an hour. We will meet in a private room, and there we will settle the day on which we will start, the direction we will follow, and the outfit we will take with us.' We all kept the appointment, and when we had arranged the conditions of the journey, M. Finzens said: 'We must aim at passing the first night in the *châlet* nearest to the glacier. I think the best place is Lavetz, where M. Sebastien Linthy keeps his cattle. But, in order that he may not reveal our plans, which must be kept secret, we must speak to him confidentially beforehand, expound our views to him, and request him to mention them to no one.'

"M. Linthy agreed to our proposal cordially. About the date of St. Bernard, we learnt that the Alagna men proposed to make their excursion in August. For our part, we wanted to anticipate them and start at Saint Jacques. That is why we had agreed to get ready everything that was required to assure a satisfactory result of our attempt, —such things as clothes, boots, ropes, alpenstocks, and several days' provisions. But, when everything was ready, and we were only waiting for the appointed day, bad weather interfered with us. Clouds covered the mountain, and rain fell incessantly for several weeks. It was not until the middle of August that the weather recovered, and the sky displayed itself in all its serenity.

"'Here we are!' said every one. 'Let us make haste and take advantage of the fine weather.' And, as it were instinctively, we sought a meeting to agree upon the hour of our departure. No sooner said than done. M. Finzens had a sturdy mule. We loaded it with our provisions, consisting of bread, cheese, wine, maize, cooking utensils, wood, etc. MM. Finzens and Linthy started the first, making as though they were going to Lavetz. We hunters started afterwards, two at a time, and at different intervals, as if we were going hunting, so as not to attract public attention. About seven in the evening we all met at Lavetz, and gave free expression to our delight, while eating our supper. After this, we prepared our personal provisions, which each of us was to carry on his back, and lay down to take a little rest.

"At midnight, exactly, we were on our feet again, shouldered our packages, and started. In an hour's time we reached the Col de Salz. Turning to the right, we climbed up the slopes of the Hohe Licht. After having reached the summit of this peak, we followed the *arête* which joins it to the mountain, until we came to the glacier. It was four o'clock. Daylight was beginning. We rested a little, and made ourselves comfortable.

"That done, we all seven tied ourselves together with the rope, at a distance of a fathom one from another, so as to avoid all accident in crossing the crevasses. Then we picked up our packs again, and set off in the following order: The eldest, Valentine Beck, 1st; Joseph Beck, 2nd; Sebastien Linthy, 3rd; Etienne Lisge, 4th; Joseph Zumstein, 5th; Nicolas Finzens, 6th; François Cartel, 7th: all with alpenstocks in their hands and climbing irons fixed to their boots. We had agreed, before we started, to keep the rope taut between us, and that, whenever the leader stopped, the others should stop too. And so we set off across the glacier.

"As we climbed, we encountered an atmosphere so rare that it gave us headaches, set us panting, and obliged us to rest every minute, and take a little stimulant. But our stomachs would accept no food. Nothing short of bread and onions could have restored our vigour. We began to become melancholy, and to feel ourselves crushed. Although we were favoured with as good weather as we could wish for, it was only with the greatest effort that we got to the head of the glacier. There we encountered a slope of rock, devoid of snow, which we had to climb in order to look down into the Vallais. It was twelve o'clock. Hardly had we got to the summit of the rock than we saw a grand—an amazing—spectacle. We sat down to contemplate at our leisure the lost valley, which seemed to us to be entirely covered with glaciers. We examined it carefully, but could not satisfy ourselves that it was an unknown valley, seeing that none of us had ever been in the Vallais.

"We had been more than an hour on this rock, which we had called the Rock of the Discovery. We began to feel the need of repairing our exhausted energies; but none of us had any appetite, though we all had an excessive thirst.

"We feel quite certain that we discovered this hidden valley, the existence of which had long been suspected, though it had never been visited. We were strongly tempted to continue our exploration, so as to be able to report a few details about it. But, as it was already two o'clock by our watches, we determined to turn back, for fear lest night should overtake us on the glacier. So, without loss of time, we set off to descend, and, worn out with fatigue, arrived at Lavetz about ten o'clock in the evening, twenty-two hours after our departure. We spent the rest of the night there, and on the following morning went each to our own homes. Amen for the present."

So runs the narrative, originally written in German, and communicated, by a descendant of one of the party, to Signor P. L. Vesco, who published it in French. It is a very modest account of a very important excursion. For the *Rocher de la Découverte*, on the Lys Joch, is some 14,000 ft. above the sea-level; whence it seems clear that the peasants of Gressoney were, as the French would say, the "record-men" of their period in the matter of high altitudes. The date of their climb was 1778, and they repeated it in 1780, without improving on it; though the keener-sighted members of the party found indications to suggest that the supposed unknown valley was nothing else, after all, than the known valley of Zermatt, culminating in the pastures of the Riffel Alp, and the Grenz and Gorner Glaciers.

After the peasants came a man of science—Comte de Morozzo. He was a member of the Turin Academy, though he was afterwards turned out of it for continuing to be loyal to his King after the battle of Marengo. In 1789 he published, in the Proceedings of the Academy, a narration of two scientific excursions to the high Alps. One of these journeys took him to the Gries Glacier,—the way across which, we gather, was, even in those early days, marked off by stakes. The other visit was to Macugnaga, and included an attempt to climb Monte Rosa. After Beck's story, it reads tamely enough; but, as it is short, it may as well be quoted.

"I even attempted," the Count says, "to ascend it, but I confess that I did not expect the undertaking to be as difficult as I found it. All the same, however, I got up the first glacier, from which the Anza rises, and was, at an approximate estimate, about fifteen hundred fathoms high; but my guides assured me that the enterprise was impossible, and I had to abandon it. Looking from where I stood to the highest point of the mountain, the elevation seemed to me to be still very considerable, and I even believe that it is equal to that of Mont Blanc."

After the Turin philosopher came the local medical man, Dr. Pietro Giordani, of Alagna. His name is carried by the Punta Giordani (13,304 ft.), which he ascended in 1801. The story lived that, during his short sojourn on the glaciers, he wrote a letter about his experiences to a friend who caused it to be printed in a book; and the problem was to find that letter. Ultimately the chemist of Prato Sesia hit upon it in an old copy of the *Ecclectico*—a species of annual published at Varallo, in 1820, by the Notary, Michele Cusa, who had been the climber's correspondent. He copied it out, and it has since been published in the *Bulletino* for 1884. It is short, and does not overflow with detail.

"*Dr. Giordani to his friend Michele Cusa.*

"*The Glaciers of Monte Rosa,*

"July 23, 1801.

"It is from the top of the Alps that I write to you. I have climbed higher than the level of all the highest mountains except Monte Rosa, the peaks of which are still a few hundred fathoms above me. A sloping piece of granite, protruding from the snow just far enough to let me spread my sheet of paper on it, serves me for a table to scrawl these notes; a square block of blue ice serves me for a seat.

"To the north I have the lofty white peaks of Monte Rosa. To the north-west I see the entire chain of the great Alps as far as Mont Blanc, which I behold towering majestically above them. Thence I behold the whole chain of the Graian, Cottian, and Maritime Alps as far as the Apennines in Liguria; to the north-east all the innumerable mountains which split up Switzerland—the Saint Gothard, the Rhætian Alps, and, finally, the mountains of the Tyrol. Within that area I gaze upon the Cis-Alpine Region, the whole of Piedmont, and the countless cities and towns, now whitened by the reflected rays of the sun, which strike them at a considerable slant, as it is now about four o'clock in the afternoon. Picture the spectacle, my friend! But you cannot, without seeing it! The crown of the mountains on which I find myself is flanked, to east and west, by astounding glaciers, some of them sloping gently, others dropping away steeply, others cut with fearful and profound crevasses. To the left, higher up than the spot on which I stand, there flows over the rocks a very clear stream of water, issuing from an enormous mass of ice, with a perpendicular face more than twenty-six feet high, vertically crevassed, and of a deep blue colour. After having run, for the space of about thirty fathoms, over the rocks—which are traversed horizontally by a vein of red quartz—it leaps over a precipice, and is lost upon the glacier beneath.

"You cannot imagine my chagrin at finding myself in that Sanctuary of Nature, destitute of the proper instruments for measuring the altitude and for the various experiments in physics which I should have had a unique opportunity of making. A little lower I found a few vegetable growths, such as the *Ranunculus glacialis*, the double and purple *saxifrage*, the *Diapensia elevelica*, the *Senecio unifloro*, and some lichens. For the rest, it seemed as though I walked over the tomb of living Nature.

"I saw no insuperable obstacle to prevent me from ascending the peak of Monte Rosa that was nearest to me. It was only the lateness of the hour that obliged me to retrace my steps; and my only uneasiness lay in the thought, at such an hour, of the distance that separated me from the nearest human habitation. In fact, the pleasure of observing and studying Nature is very great. I am more than repaid for my fatigue, both by the sights I have seen and by the consoling thought that I have discovered a way of ascending that great Colossus, Monte Rosa, so that the Physicists of the future will be able to study and observe it at their ease, and to interrogate frozen Nature on her secrets—with more especial reference to meteorology.

"I have profited from the slow progress of certain experiments which I am instituting, with carbonic acid, in order to supplement these jottings, so clumsily put together; but, you must consider the weather, the situation in which I am, and the wind which causes me much inconvenience as I write. The thermometer is, at this moment, $4\frac{7}{8}°$ above zero; my respiration is much troubled by the rarity of the air; and my pulse is 110 to the minute.

"I conclude, therefore, in order that I may put my few instruments away in my pocket, and see about my departure from these solitary regions.

"Friendship and salutation,
"At Four o'clock in the Afternoon,
"GIORDANI."

Strictly speaking, perhaps, this incident should be regarded as closing the early history of Monte Rosa; the subsequent[1] dates of chief importance in its annals being as follows:—

---

[1] The *Moniteur Universel* for September 22, 1813, published an account of an alleged ascent of Monte Rosa in the August of that year. M. Puiseux, however, in the eighteenth volume of the *Annuaire du Club Alpin Français*, proves that the traveller was mistaken in his mountain, and in all probability only climbed the Breithorn. As the

1817.—First ascent (? attempt) of the Parrot Spitze (14,643 ft.), by Dr. Frédéric Parrot.

1819.—First ascent of the Vincent Pyramide (13,829 ft.), by J. N. Vincent.

1820.—First ascent of the Zumstein Spitze (15,004 ft.), by Herren Zumstein, Molinatti, and A. and J. N. Vincent.

1822.—First ascent of the Ludwigshohe (14,259 ft.), by Ludwig, Baron von Welden.

1842.—First ascent of the Signal Kuppe (14,965 ft.), or Punta Gnifetti, by Signor Gnifetti, Curé of Alagna.

1847.—Ascent of the Silber Sattel (14,285 ft.), by MM. Puiseux and Ordinaire.

1848.—Ascent of the Grenzgipfel (15,194 ft.), by Professor Ulrich's guides, Johann Madutz and Mathias Z. Tangwald.

1855.—First ascent of the Dufour Spitze (15,217 ft.), by Messrs. G. and C. Smyth, Hudson, Birkbeck and Stevenson.

To relate each of these adventures separately would be a tedious task; but something should be said of the climbers who took part in them. Dr. Parrot, who comes first on the

---

Breithorn does not deserve a chapter to itself, the account of the climb may be appended here. The *Moniteur* says:—

"Ou écrit de Genève qu'un voyageur Français, M. Henri Maynard, accompagné de Marie Joseph Couttet de Chamouny, ancien guide de M. de Saussure, a monté le Mont Rose, le 13 Août, 1813.

"Le Mont Rose, comme ou sait, est situé entre le Vallais et le Piémont, et s'élève à une hauteur 2,430 toises au dessus de la mer. C'est à peu-près la hauteur du Mont Blanc, qui, selon M. de Saussure, est de 2,450 toises; comme lui il est couvert de neiges éternelles, personne n'avait encore entrepris de le monter.

"Les voyageurs partis de Châtillon, dans la Vallée d'Aoste, le jeudi 12 Août, 1813, remontèrent le Val-Tornanche, jusqu' aux châlets de Breuil, situés à 1,130 toises au-dessus de la mer.

"Le même jour, à onze heures du soir, à la faveur du clair de Lune, ils sont partis des chalets de Breuil, avec Jean Gras Erin, Jean-Baptiste Erin, son neveu, tous habitans du Val-Tornanche. Ils sont arrivés le vendredi 13 Août à cinq heures du matin sur le col de Saint

list, was a physician of Dorpat and a climber of many mountains; he travelled in the Pyrenees and the Caucasus, and was the first man to get to the top of Ararat. His companion, Vincent, was a son of the Vincent who, because he was by way of being an educated man, was put at the head of the peasants' quest for the happy valley, in 1776. Zumstein was an Inspector of Forests. Baron Ludwig von Welden was an officer in the Austrian service, known as a writer on military topics; he mapped and measured Monte Rosa, and wrote an important monograph upon it, which was published at Vienna, in 1824.

They were all good men, but the best of them—the most interesting as well as the most indefatigable—was unquestionably Zumstein. He made no fewer than five serious endeavours to ascend the mountain—one of them under the direct auspices of the Turin Academy, which told off

---

Théodule ou du Mont Cervin, situé à 1,736 toises au-dessus de la mer, et sont parvenus sur la cime du Mont Rose à midi et demi, sans accident, et sans éprouver de très grandes difficultés, mais extrêmement fatigués de la rareté de l'air, et le visage tout brûlé par la réverbération des neiges. Ils ont deposé sur la cime diverses monnaies de France, et du royaume d'Italie de l'année actuelle 1813. Les guides ont fait constater le voyage par M. Jacques Maynet, maire de la commune de Val-Tournanche, lequel résidait alors dans son habitation d'été, au chalêts de Breuil.

"Il est à désirer que les amateurs de géologie puissent avoir une relation de ce voyage, avec les observations auxquelles il a dû donner lieu."

It should be noted, however, that Couttet firmly believed himself to have made the ascent of Monte Rosa; for we read in a foot-note to Clissold's *Narrative of an Ascent to the Summit of Mont Blanc*:—

"Couttet states that the traveller requires only three or four guides for the ascent of Monte Rosa, as its summit may be gained with comparatively little hazard and labour; indeed one of the monks of the Convent of Grand St. Bernard, related to me that one of their order ascended to Monte Rosa with only one guide."

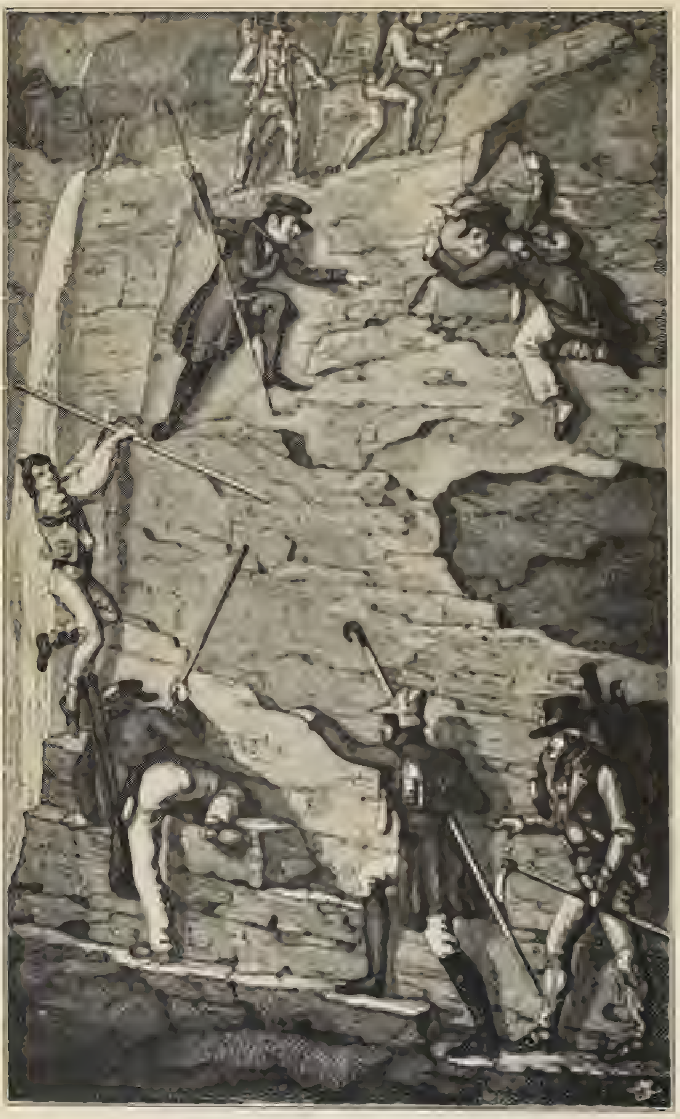
The climber in question was Canon Bernfaller. He ascended the Pyramide de Vincent on August 10, 1819, five days after Vincent's ascent.

an Italian surveyor, who could not climb to any extent worth speaking of—Signor Molinatti, to wit—to accompany him with scientific instruments. On one occasion he spent the night, in a cleft of ice, at an elevation of nearly 14,000 feet—a greater feat even than Balmat accomplished when he spent the night upon the Grand Plateau. On another of his climbs he was nearly lost in a thunderstorm; a graphic account of his perils, given in his own words, is to be read in Welden's book. And he lived to become almost an institution—the Grand Old Man of Monte Rosa, whom every curious visitor to Gressoney thought it necessary to call upon, just as the visitors to Geneva of an earlier period thought it necessary to call upon the Historian of the Alps. Interviews with him—if one may so call them—abound in the narratives of Monte Rosa, published in the forties. A brief one, for example, is contributed by Professor J. D. Forbes; while the Rev. Samuel King, in his *Italian Valleys of the Pennine Alps*, published in 1858, discourses of him as though he were describing a celebrity at home for a society newspaper. This is the picture, which may well conclude the chapter:—

"We found the *savant* at home in his snug little *châlet*, and just returned from marmot shooting on the mountains. He welcomed us heartily, and we were hardly seated when the rain poured down heavily, and kept us there great part of the afternoon, which we spent most pleasantly, hearing the narratives of his ascents of Monte Rosa, looking over a number of interesting drawings and MS. observations, and in planning excursions during our stay in the valley. Among his papers was a table by Plana, the astronomer of Turin, for the calculation of altitudes from the temperature of boiling water, adapted to Réaumur and Centigrade; and as I had been unable to find a Fahrenheit at Turin to replace my own thermometer, having only obtained a small

Centigrade, Zumstein very kindly presented me with the original in the professor's hand-writing. On a bookshelf—which, with guns, geological hammer, instruments, and coloured engravings of De Saussure's ascent of Mont Blanc, decorated the wall—among a few choice volumes was a German edition of Forbes, published at Stutgard, 1845, to which he paid the well-merited tribute of its having 'surpassed in value all that any one else had written on the subject.' The many little remembrances he possessed of the visits of such travellers as Forbes, the Schlagintweits—then in the Himalayas, under the auspices of Humboldt—Von Welden, Brockedon, and many other well-known names, were doubly interesting in this remote valley, entirely secluded, as it seemed, from the world, and more than twenty miles from the nearest *char* road."

It is a method of writing up a celebrity which is quite in the vein of the *World;* and he would be a rash commentator who would deny that Zumstein was a celebrity as well worth gossiping about as several of those to whom the *World* has devoted many gossiping pages of eulogistic eloquence.



EARLY MOUNTAINEERS ON THE JUNGFRAU

[*To face p.* 201.

CHAPTER XXII.

The Pioneers of the Oberland—Early Legend—The First Alpine Journal—Ascent of the Jungfrau and the Finister-Aar Horn by the Meyers—The Pioneers of the Tyrol.

THE only other regions of the Alps which were invaded by early mountaineers were the Oberland and the Tyrol.

Grindelwald, as has already been pointed out, in the chapter relating to glaciers, was known to travellers from comparatively early times. But their knowledge was very vague; how vague may be gathered from the following typical passage, extracted from the works of Wagner, the Natural Historian:—

> "In Grindelia quoque valle tres ejusmodi montes reperiuntur: inter eos autem præ ceteris decantatus Mons ille glaciatus quem κατ' ἐξοχὴν vulgo 'Den Grossen Gletscher' appellant, rarum sane Naturæ miraculum. Mons hic niveus jam ab aliquot seculis tanta incrementa sumpsit, ut terram proxime circumjacentem una cum arboribus, pratis amœnissimis, ac casis vicinis paulatim a se repulerit ita ut accolæ tuguriola sua alio transferre coacti fuerint."

This was written in 1680. In a poem written by Pastor Rebmann, of Guttannen, on the Grimsel Road, in 1605, we find an even vaguer reference to an alleged "lost pass" over the Oberland Glaciers. The matter is summed up in the following four lines:—

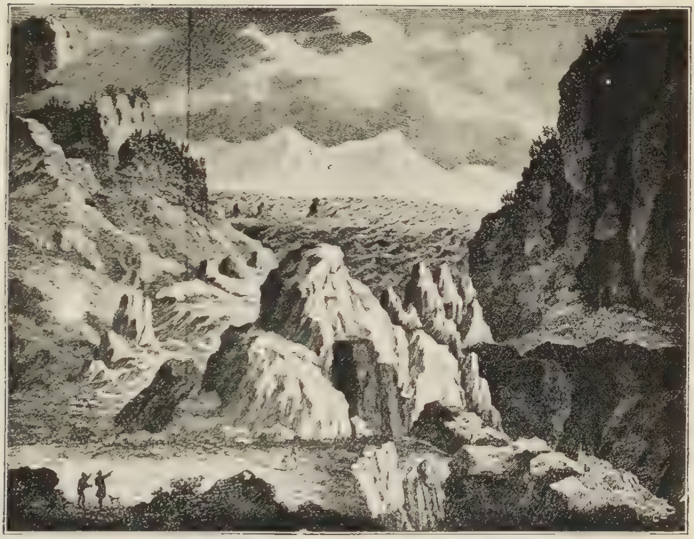
"Scheideck, Jungfrau, und Fischerhorn
Zwischend denen ein Strass verlorn
In's Hasliland, da y' hochst man findt
Im Thal der finster Aar entspringt."

The attempt to deal systematically and scientifically with the topography of the Oberland did not begin till the eighteenth century was well advanced; the earliest books of any importance dealing with it being J. G. Altmann's *Beschreibung der Helvetischen Eisbergen*, published in 1750; and Gruner's *Die Eisgebirge des Schweizerlandes*, published in 1760. We know little of the two writers, except that they were Professors at the University of Berne; and it is not even clear to what extent they engaged in climbing or exploration. They did their work thoroughly, however, and their books are as encyclopædic as the knowledge of their period permitted; though that of Gruner is the more encyclopædic of the two. He points out that, between the Oberland and the Valais, there is a vast Terra Incognita, "a chain of valleys of ice which is at present unknown, and probably will ever be so." But he gives us some very interesting information about the few passes that were known, and faithfully records the few stories that he heard of earlier glacier journeys.

We gather from him, for example, that the passage of the Gemmi had only lately ceased to be perilous to life and limb:—

> "Until 1741 there was only room for one man to pass at a time. The roughest places were furnished with planks, and protected by a wall. Midway down the cliff, one had to pass over a little wooden bridge, suspended by iron chains; the least false step would precipitate you over the abyss. The majority of travellers did not dare to face the risk, but got men, trained to the trade, to carry them."

There is also a minute description of the Grimsel, and a note on the Strahleck to the effect that only one shepherd had ever ventured to cross it. "He traversed the most frightful valleys of ice, and was in peril of his life at almost every step." Then there follows a report of a way,



GRUNER'S VIEW OF THE LOWER GRINDELWALD GLACIER.

[*To face p.* 202.

known in old times, from Grindelwald to the Valais, over the lower Grindelwald and Viesch Glaciers:—

"It is known that the people of Grindelwald used to go by way of this valley to the baths of Viesch in the Valais, and that it also served as a way for the Valaisians to visit Sainte Petronelle in Grindelwald. It is said that, when the glacier diminishes, the chapel of the saint can still be seen underneath the ice—or, rather, underneath the blocks of stone. Although the glacier is smaller to-day than it was two hundred years ago, I have not been able to discover any trace of this chapel. Still, the ancient archives attest that this saint lived at Grindelwald, and her house, in the village, far away from the ice, is still pointed out."

The same story is told by Ebel in his Guide, with the circumstantial addition that "they still show, at Grindelwald, a clock with the date 1044, which hung in the Chapel of Saint Petronella in this pass." Another story of a glacier journey, told in some detail by Altmann and Ebel, as well as Gruner, is the following:—

"Since the pass has been filled with ice, three other rash men have made the attempt to cross it. During the Civil War, in 1712, three inhabitants of Grindelwald were taken to the Valais as hostages. Their only way of escape was over the glaciers; and their necessity taught them to scorn the dangers of this unheard-of journey. On the Valais side they got to the top of the mountain without much difficulty; but on the Grindelwald side they encountered nothing but mountains of ice. Every step they took they had to cut in the ice, and they were obliged to labour day and night, that they might not die of cold. After infinite difficulty and danger, they arrived half-dead at Grindelwald, and were presented to the magistrates by their compatriots as men risen from the dead."

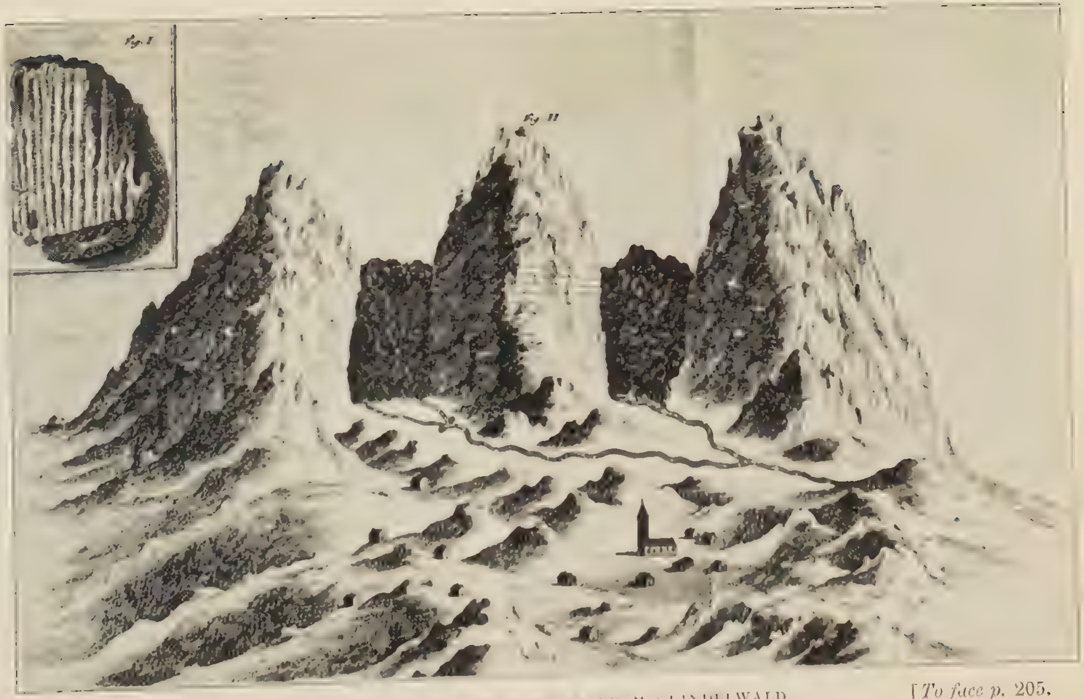
This, together with a story of some Roman Catholic miners employed in the Lauterbrunnen Valley, who crossed the Wetterlücke for the purpose of attending mass, and a legend of a hunter who was guided over a glacier pass by a ghost, is all the really early history of the Oberland glaciers that we have. The early tourists, as distinguished from the early *savants*, add very little to our stock of knowledge. Ebel's remark that a visit to the glaciers demands "undaunted intrepidity," and his recommendation of Grindelwald as the "least dangerous" place from which to observe them gives us, perhaps, a fair notion of their value as explorers. Many of them, indeed, went away, declaring the glaciers to be uninteresting. The Rev. William Coxe, for instance, avows that they fell far below his expectations; while Guibert, a French General, who visited Grindelwald in 1784, treats them with absolute disdain.

"My guide," he says, "proposed to me to go and look at the other glacier, which is a league away, and which, he said, was a little bigger and higher. I was satisfied with looking at it from a distance. It could have taught me nothing more, and I have seen as much of the glaciers as I ever wish to see."

Finally, there is Yosy, who writes in 1815, that "the Jungfrauhorn is one of those stupendous mountains whose summit has never been ascended; and, indeed, the immense chasms with which it abounds, together with its spherical form, would render the undertaking very hazardous."

As a matter of fact, however, in 1815, the Jungfrau had already been ascended twice; so that it is now necessary to turn back and consider what there is to be said about the early climbers.

The impetus to climb was first expressed, if not actually given, by the appearance, in 1806, of *Alpina*, the earliest



OLD VIEW OF THE SNOW PEAKS FROM GRINDELWALD. [To face p. 205.

of all the Alpine Journals. Edited by Ulysses von Salis, this publication lasted for four years. It contained articles on such topics as "Chamois Hunting in Switzerland," "Recollections of a Journey through the Appenzeller Alps," "A Trigonometrical Survey of the Valley of Luziensteig," "The Ascent of the Ortler Spitz," etc. It reviewed all the climbing books of the period—those, for example, of Bourrit, of Albanis de Beaumont, and of J. G. Ebel; and, finally, it incited climbers to come on, remarking that—

> "The Glockner and the Ortler may serve as striking instances of our ignorance until a few years ago, of the highest peaks in the Alpine ranges. Excluding the Gotthard, and Mont Blanc, and their surrounding eminences, there still remain more than a few marvellous and colossal peaks which are no less worthy of becoming better known."

Some of the peaks had, perhaps, already received attention from certain daring spirits. Von Salis, at any rate, has stories, more or less vague, to tell of early endeavours to ascend the Eiger. There was a legend, for example, of an Englishman who "had persisted in attempting to reach the highest point, had actually gained it, and had lighted upon the summit, either as a sign of his victory or a signal of distress, a beacon fire, and had been seen no more by human eyes." There was also a tradition, of the same quality, of an ascent of the Silberhorn by "determined hunters." We are told that "the last who climbed to the top found a knife there, and took it, leaving his own in its place." Such anecdotes, however, are of no particular importance, as they can neither be verified nor disproved; and authentic mountaineering on the Oberland only dates from the advent of the House of Meyer, with its three generations of climbers.

Johann Rudolf Meyer the First was best known to his contemporaries as a maker of maps. Mr. Longman, in the *Alpine Journal*, suggests that he had nothing to do with his maps except to draw them, and that he employed other people to do the necessary travelling and surveying; but his own journeys, according to his biographer, Ernst August Evers,[1] had been very considerable for his age. He had crossed the St. Gothardt, the Furka, the Grimsel, and the Scheideck, to the amazement of the peasants, who "could not imagine what he wanted there, seeing that he was neither a butcher nor a crystal seeker." Still, it was one of his surveyors—Herr Weiss, of Strassburg—who made the first ascent of the Oberaarjoch in 1795. The story is told by Johann Rudolf Meyer the Second in his *Reise auf den Jungfrau-Gletcher und Ersteigung seines Gipfels.* Herr Weiss, it appears, accomplished the excursion

> "With the most incredible peril of his life. He and his companions were compelled to let themselves down into the deep crevasses of the ice, and then to seek or make a way out again. He had to spend the night in the hollows and clefts of the eternal ice, and to use every combustible article that they had with them, as firewood, in order to resist the benumbing cold."

That is all. Herr Weiss does not appear to have ever climbed a peak—an achievement which was reserved for Johann Rudolf Meyer the Second, and his brother Hieronymus. The brothers managed a silk ribbon factory at Aarau; but desired "to learn the relations between the various vast basins of eternal snow," and to "ascertain whether the peaks which rise out of them could be reached." The complete story of their adventures is contained in two pamphlets,[1] written up from their notes, by a certain Herr Zschokke. They are slovenly-written narratives, but they serve their purpose.

---

[1] *Vater Johann Rudolph Meyer.* By Ernst August Evers. Aarau, 1815.

The climbers left Aarau on July 29, 1811, and, crossing the Grimsel, descended the Rhone Valley to Naters. Thence they came over the Beichgrat, ascended the Lötsch Glacier and slept under a rock, at a point where the Aletsch Firn and the Aletsch Glacier meet. On August 2nd they made a start, but were driven back by the Föhn. On August 3rd they sent their porter home for fresh supplies, and made a second start, and climbed to the very summit of the Jungfrau. The account of their adventures is thus summed up from their narrative in Mr. Longman's contribution to the *Alpine Journal*:—

> "The way now lay over an icy gap in the ridge, with steep walls on either side, which was probably the Roththal Sattel. They straddled across the *arête*, and then arrived at the front of what seemed the actual summit. A narrow snow ridge between naked rocks led towards the peak. But, although it was not more than 600 ft. above them in perpendicular height, it took them four hours to reach its top. It was already twelve o'clock. They found, however, that they had not even then attained the true summit. The final peak was before them, but to attain it they again had to straddle an icy *arête*, with the Lauterbrunnen Valley deep down on the left, and the snow field at the back of the Mönch on their right. After this it was necessary to cross a deep crevasse which separated the *arête* from the summit, which they at last reached at two p.m."

Such was the first big ascent on the Oberland; and the appearance of the travellers' tale was saluted with an outburst of the usual scepticism. Their reply to their incredulous critics was to climb the mountain again, in 1812, accompanied, this time, by Gottlieb Meyer the Third, the son of Johann Rudolf. In the same year the same climbers made the first ascent of the Finsteraar Horn—a peak which was afterwards to remain untrodden for a period of five-and-forty years.

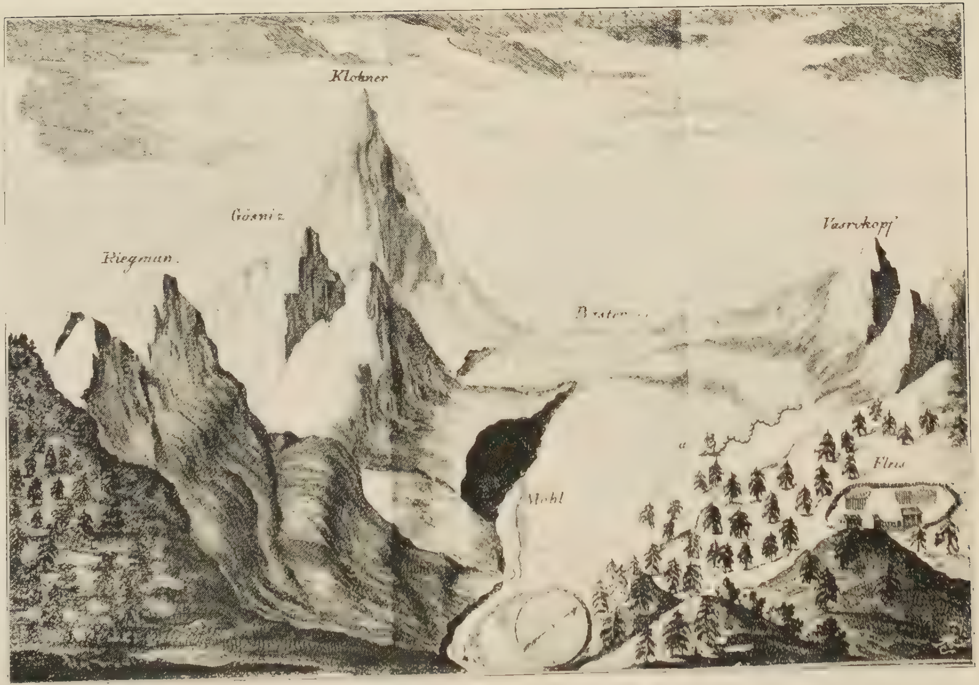
---

[1] *Reise auf den Jungfrau-Gletscher und Ersteigung seines Gipfels*, and *Reise auf die Eisgebirge des Kantons Bern und Ersteigung ihrer höchsten Gipfel*.

Here, then, the early annals of the Oberland may be held to end; and it only remains to glance briefly at those early ascents of the Tyrolean peaks—the Gross Glockner and the Ortler—to which we have seen the editor of *Alpina* making reference.

The early Austrian maps—like that of Wolfgang Lazius, issued in 1580—do not admit the existence of the Gross Glockner, but plant vague forests in the place where it should be. The first cartographer to mark it is Von Holzwurm, in 1649, who also marks off a certain space around it as *glacies perpetua.* Valvassor, however, in 1688, leaves it out again; but though it figures in Homann's *Atlanten Von Deutchsland* in 1710, Busching's manual of geography, published in 1761, does not include it in his list of the highest mountains of the empire. It only came into prominence with the publication first of Professor Hacquet's *Mineralogische-Botanische Lust-Reise von dem Berg Teiglon in Krain zu dem Berg-Glokner in Tyrol*, in 1784, and then of Sigmund von Hohenwart's *Botanische Reise in dem Alpen*, in 1793.

Neither of the travellers tried to climb the mountain; and Hohenwart remarked that the difficulty of such an undertaking might well deter De Saussure himself. Hacquet, however, says that attempts to ascend it had been made, that he attributes their failure to bad management, and only regrets that his years forbid him to essay the trip himself. Then Franz Altgraf von Salm-Reifferscheid-


Klokner
Gösniz
Riegman.
Vasrvkopf
Brater
a
Mohl
Fleis

OLD VIEW OF THE GROSS GLOCKNER.

[*To face p.* 209.

Krantheim, Bishop of Gurk, comes into the story. He had heard of the Gross Glockner in the course of his episcopal visitations, and he resolved to get to the top of it. A hut was built for him on what is now known as the Salmshöhe. His party was thirty in number, and included a cook, whose culinary talents are said to have been unfavourably affected by the change of air and scene. Bad weather nearly prevented him from starting at all, but he ultimately attained the nearer and lower summit of the Gross Glockner, where he erected an iron cross, bearing the inscription :—

"*Eia nunc rara moles, exple finem, crucem exalta, cultum promove! Posuit Franciscus antistes Gurcensis,* 25 *August,* 1799."

When the Bishop discovered that the summit which he had attained was not the true summit, his disappointment was great, and he immediately made arrangements for the rectification of his error. He rectified it, and made the complete ascent of the mountain on July 28, 1800. The feat was celebrated by a poet, whose verses may be quoted :—

"Mein Glokner! hast du's je geglaubt!
Erklommen ist dein Riesen-Haupt
In ew'ger Silbermüze!
Hohragend aus der Wolken Raum,
Erreichbar und erflogen Kaum
Dem Adler und dein Blize!

Ho! Wie dein göldnes Wendel-Creuz,
Das Frömmigkeit gepflanzt-bereits
Auf uns hernieder blinket:
Dem trüben Forscher-Aug, entlang
Den zweifelhaften Spurengang,
Zu deinen Wundern winket!

O! blühten doch aus deinem Schooss
Dem edlen Stifter, weis' und gross,
Verdiente Lorber kränze!
Sein Ruhm hat—wie du selber hast
In deinem blauen Lustpallast—
Den Himmel nur zur Gränze."

There, in the odour of poetry, the pioneers of the Gross Glockner may be left; and of the pioneers of the Ortler there is little more than a sentence to be written. Peter Anich's Atlas, in 1774, announces it as the highest peak in the Tyrol; but the first man who took any interest in it was the Archduke John of Austria. He ordered Dr. Gebhard, the botanist, to go and climb it,—much as the French King, Charles VIII., ordered his Chamberlain to go and climb Mont Aiguille. Between August 28 and September 22, 1804, Dr. Gebhard made seven unsuccessful attempts, and he was beginning to have his doubts of the possibility of the undertaking, when Joseph Pichler, chamois hunter, introduced himself, and said that he thought he could find a way up. He set out in the early morning of September 24th, and got to the top between ten and eleven in the forenoon. Gebhard returned to the attack, and accomplished the ascent in the course of the following summer.

CHAPTER XXIII.

The Early History of the Pyrenees—An Ascent of the Pic du Midi in the Sixteenth Century.

It would be a work of supererogation to attempt, in such a volume as this, to trace the history of the Pyrenees from the earliest times. Those who are curious about that history must be referred to M. Almeida's admirable monograph:[1] whence they will be referred again to all the original authorities, such as Herodotus, who supposed the Pyrenees to be a town; Aristotle, who imagined that they contained the sources of the Danube; Denys of Halicarnassus, who located them in the south-east of Gaul; Strabo, who declared that the range was parallel with the Rhine; Diodorus Siculus, who tells of a forest fire which melted the silver in the mines, with the result that streams of molten metal flowed down the sides of the hills; and the Arabian geographers who wrote of the mountains, but dared not visit them, because their enemies were in possession and defied them to come on.

Pursuing the subject a little further, we find that the first traveller, in the modern sense of the word, who crossed the Pyrenees, was the Jew, Rabbi Benjamin Ben Jonah, of Tudela. But, though Benjamin wrote an account of his voyages, his interests appear to have been purely tribal. He tells us the number of Jews in the various towns which he visited, and celebrates the virtues of the Rabbis who entertained him hospitably, but makes no mention whatever of the mountains which we know he must have traversed to get from place to place. It was not, in fact, until a much later period, that any one took any particular interest in the Pyrenees; and the sixteenth century was well advanced before there was any serious endeavour to climb any of the peaks. Then we read of an attempt, which only just missed being a successful attempt, upon the Pic du Midi, by François de Foix, Comte de Candale, and Bishop of Aire, in Gascony.

---

[1] *Les Pyrénées.* By Camena d'Almeida. Paris, 1893, 8vo.

This early mountaineer was born in 1502, and died, at a ripe old age, in 1594. He was celebrated for his learning, being a great amateur of the mathematics, who endowed a mathematical chair at the University of Bordeaux, and translated the works of Euclid into French. His mathematics, indeed, suggested his mountaineering; for his principal purpose in ascending the Pic du Midi was to ascertain its height. Though his methods of mensuration are recorded in such an enigmatical fashion that it is impossible to follow them, the result which he brought out was approximately accurate; and he must not be held responsible for his commentator's conclusion that the mountain might contest with Mount Olympus the distinction of being the highest in the world. It should be added that, the height of the Pic du Midi being 9,547 feet, M. de Candale seems to have got further from the sea-level than any other mountaineers of his generation, except Francisco Montaño and his companions of the army of Cortez, who, in 1521, fetched sulphur for the manufacture of their gunpowder from the crater of Popocateptl.[1]

The story of the adventure is told by De Thou—the De

---

[1] This ascent is the subject of a report sent home by Cortez to the King of Spain. After describing the adventure, Cortez expresses the opinion that, in the future, it will be more convenient to import the powder, ready-made, from Spain.

Thou who wrote the Memoirs, and whom Bossuet describes as "le grand, le fidèle, historien"—the father of the De Thou who was beheaded for conspiring with Cinq Mars against Cardinal Richelieu. In 1588, M. de Thou was sent to the South of France, on a confidential mission, by Henry III. During his stay there he took the waters at Eaux Bonnes, then known as Bains du Béarn. Remaining for a week, he drank twenty-five glasses of water a day, "rather for pleasure than from necessity," with the result that, "though they did not purge him, he felt great relief, and a wonderful appetite, slept tranquilly, and enjoyed an astonishing sensation of lightness all over his body." Restored by this drastic treatment to a satisfactory state of health, he accepted an invitation to dine with M. de Candale at his château; and after dinner, M. de Candale told the story of his excursion, which M. de Thou wrote out when he got home. It is a naïve narrative, requiring little comment to supplement or illustrate it, so that the better plan would be to reproduce it textually, leaving criticism to any one who cares to criticise. This, then, is M. de Thou's report of M. de Candale's excursion:—

"This nobleman, who is very learned in geometry and mechanics, had at his house laboratories, workshops and forges, together with all the implements necessary for founding or manufacturing all kinds of machinery. He invited the Commissioners to dinner, and seasoned the banquet with learned conversation, according to his wont. De Thou turned the talk to the subject of the possible altitude of the Pyrenees, knowing that it would please his host to be started on this topic.

"M. de Candale told them that he had visited the waters of Béarn, near Pau, in the suite of Henri d'Albret, King of Navarre, the father of Princesse Jeanne, whose near relative he was; that, during the stay that he made there, he resolved to climb to the top of the highest mountain, which is not far distant, and is called *les Jumelles*, because, high up, it is divided off into two portions like a pitchfork; that, while he was making ready everything that he judged necessary for the accomplishment of his design, several gentlemen and other young persons, wearing nothing over their vests so as to be less encumbered, offered to accompany him; that he warned them that the higher they got the colder they would feel,—a statement which only roused their mirth; that, for his own part, he had his fur coat carried by peasants who knew the neighbourhood; that, towards the middle of the month of May, at about four o'clock in the morning, they got high enough to see clouds under their feet; that the cold then gripped the young people who were in so great a hurry, so that they could go no further; that, as for himself, he put on his coat, and walked with precaution, accompanied by those who had the courage to follow him; that he ascended as far as a place where he found the lairs of wild goats, which he saw running in large herds over the steep rocks; that, having gone still further, he observed a number of the nests of eagles and other birds of prey; that, up to that point, they had found marks blazed on the rocks by people who had been up there before; but that then they saw no further path, and that, to reach the summit, they still had to go a distance equal to that which they had already covered; that the cold and rarefied air which surrounded them caused them sensations of giddiness which made them fall down in their weakness, so that they had to rest and take some food; that, after having wrapped up his head, he made his way by a fresh route, with the help of the peasants whom he had brought with him; that, when the rock resisted their endeavours, they made use of ladders, grapnels, and climbing irons; that, by this means, he got as far as a place where they no longer saw any trace of wild beast or bird, though they saw birds flying about, lower down; that, nevertheless, they were not yet at the top of the mountain; that, in the end, he got to it, or within a very little distance of it, with the aid of certain hooked sticks, which he had had made after an extraordinary pattern."

This is all the actual climbing related in the narrative, which contains, it will be observed, what is almost certainly the earliest known allusion to "mountain sickness," and also what is probably the earliest discoverable reference to "climbing irons." "Subtle machines" are, indeed, mentioned in Dompjulian de Beaupre's account of his ascent of Mont Aiguille, in 1492, but the Captain of Montélimar does not seem to have been alluding to any machines more subtle than ladders, so that it would really appear that M. de Candale anticipated the invention which Mr. Whymper found so useful when, in the early sixties, he scrambled alone upon the Matterhorn. And, in any case, the Bishop of Aire was clearly the pioneer of those who, like De Saussure, De Luc, Ramond de Carbonnières, Delfico, Condamine, Humboldt, Tyndall, and Janssen, have climbed mountains for the purpose of taking scientific observations. For the ascents of Pilatus by the Swiss scholars, for the purpose of inquiring into the truth of the Pilate legend, can hardly be styled scientific in the strictest sense of the word; while the early geometers who measured mountains, as did Xenagoras and Dicæarchus, conducted their observations from below. Let us proceed, therefore, to cite the scientific memoranda with which M. de Thou concludes his narrative. We left M. de Candale at, or near, the mountain-top. His chronicler reports:—

"That M. de Candale chose, there, a convenient place from which he could look down in safety; that he sat down there and proceeded to take the height with the quadrant; that he took for his base the peaceable stream formed by the waters which precipitate themselves from rock to rock; that, to the top of the mountain, which he could easily measure from the place where he was, he found 1,100 *brasses*, or *toises*, of our measure, taking the *toise* at six feet,—which makes 1,320 geometrical paces, the pace being taken at five feet, after the fashion of the Greeks."

This is all that M. de Candale himself had to say upon the subject. In the absence of any information as to the length of his base of the number of degrees in his angles, it is impossible to criticise his trigonometry, though, from the results which it brought out, one is disposed to infer that there was nothing seriously wrong with it. At all events, his calculations inspire more confidence than those of Mr. Thomas Coryat, of the "crudities," who, as we have seen, estimated the height of the Rochemelon at fourteen miles. But the calculations set M. de Thou thinking, with sufficiently astonishing results. He says:—

"De Thou having made profound reflections on the subject, came to the conclusion that M. de Candale was not far from the truth, or from the opinions of the ancient geometers, who report that Mount Olympus, which they thought the highest mountain in the world, could not be more than ten stades high, any more than the sea was more than ten stades deep. Xenagoras found half a stade more in the measurement which he took of the same mountain. I will say, in passing, that this calculation is not accurate in Apuleius, in the book which he has left us on the *Demon of Socrates*, and that it must be supplemented by Plutarch's *Life of Paulus Emilius*.

"That, if you multiply the stade of 125 paces by ten, reckoning the pace at five feet, after the fashion of the

Greeks, you will get 1,250 geometrical paces, which, on the assumption that eleven *toises* are equal to five feet, there or thereabouts, gives the same number that M. de Candale found. But more exact calculation may be left to those whose business it is."

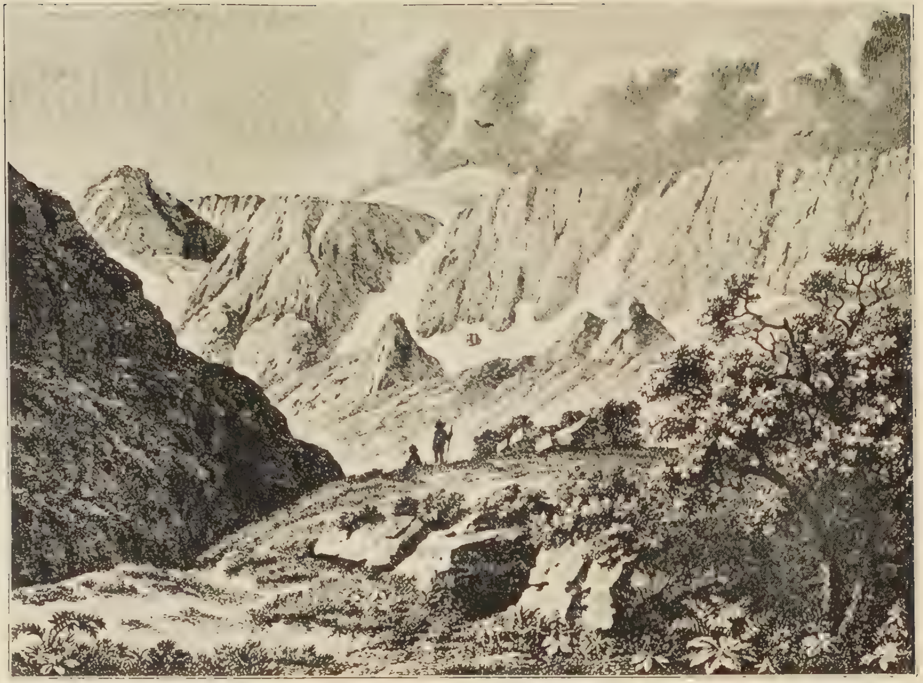
"Those whose business it is" are not only capable of "more exact calculation," but can also point out that M. de Thou has gone hopelessly wrong in his arithmetic,—unless, indeed, as is not impossible, something has gone hopelessly wrong with his text. According to that text, with its extraordinary assumption that 11 *toises* equals 5 feet, the height of Mount Olympus comes out at 13,750 fathoms, or 82,500 feet. Which is absurd, as Ramond, the most illustrious of the pioneers of the Pyrenees, points out in scathing terms.

CHAPTER XXIV.

Ramond de Carbonnière—The Pioneer of the Pyrenees.

It is a far cry from M. de Candale, Bishop of Aire, in Gascony, to Louis-François-Elizabeth Ramond de Carbonnière, who is commonly accounted the pioneer of the Pyrenees, who scrambled in the range before, during, and after the Reign of Terror, and who ultimately got to the top of Mont Perdu, till then deemed inaccessible, in the year 1802. The explorers who came between them, however, were few in number; and as they were all more anxious to take scientific observations than to climb, their achievements may easily be summed up in a paragraph.

At their head comes Hubert Jaillot, the famous cartographer, who, towards the end of the seventeenth century, made a map of the mountains, a glance at which suggests the inference that the range of his researches must have been severely limited. Then Marshal de Noailles surveyed the same neighbourhood for military purposes, and announced the interesting, but elementary, discovery that the sun was sometimes shining on the peaks at a time when rain was falling in the valleys. His account of his investigations has never been published, but may be seen, in manuscript, in the library of Rouen. A little later, in the first half of the eighteenth century, a certain M. Plantade, an astronomer of Montpellier, repeatedly ascended the Pic du Midi for the purpose of making scientific observations, and in 1741, when quite an old man, he died upon its slopes. His sextant was in his hand, and his last words, as reported by



RAMOND'S VIEW OF MONT PERDU. [*To face p.* 218.

his companions, were "*Ah! que tout ceci est beau!*" Next come Darcet and Monge, whose barometrical experiments formed the subject of a lecture delivered by Darcet[1] at the Collège de France, in 1775,—the first lecture, it may be remarked, in passing, given in the French, instead of the Latin, language before that learned body. Then followed Baron de Diétrich, who studied the mineralogy of the Pyrenees;[2] and Palassou, who concerned himself with their geology;[3] and Pasumot; and Reboul and Vidal, of the Academy of Toulouse, who measured a good many of the peaks, and lived for some days in a hut which they built themselves on the summit of the Pic du Midi. And then we come to Ramond de Carbonnière—commonly known as Ramond—who rambled everywhere among the mountains, and climbed everything that seemed worth climbing.

It is, for more than one reason, an interesting list of names. Perhaps the feature of it which most impresses the imagination is the fact that it includes so many mountaineers who became politicians and got into serious trouble of one sort or another during the Terror. Palassou, indeed, withdrew to the country when the disturbances began, and contrived to stay there till they were over; the rest of the company entered public life, with the consequences which were usual at that period of French history. Monge alone among them, by teaching the Republicans how to extract saltpetre for their gunpowder from the old plasters of their walls, remained above suspicion. Diétrich, though it was in his house that Rouget de Lisle composed the "Marseillaise," was guillotined. Darcet lay for a long while in a revolutionary prison, and was only got out through the influence of Fourquet—the same Fourquet who tried in vain to save his friend Lavoisier. Reboul, who was also one of Lavoisier's friends, fled for his life, took refuge with General Dagobert's army in the Pyrenees, was frightened over the Spanish frontier, stayed for a while at Barcelona, and ultimately found an asylum at Genoa. Ramond himself, as we shall see presently, had as good reason as any man to bless the name of Thermidor. But this is to anticipate. We must begin to trace Ramond's career from somewhat further back.

---

[1] *Discours sur l'état actuel des montagnes des Pyrénées, et sur les causes de leur dégradation.* Paris, 1776, 8vo.

[2] *Essai sur la Minéralogie des Monts Pyrénées.* 1784.

[3] *Voyages physiques dans les Pyrénées en* 1788 *et* 1789. Paris, 1797, 8vo.

Our first glimpse of him is of a brilliant young student of the University of Strassburg, oppressed by morbid tendencies which hardly seem consonant with the character of an enterprising mountaineer. He had fallen under the influence of Goethe, who was six years his senior, at the University; and the result of his admiration for *The Sorrows of Werther* was that he wrote a book entitled *Dernières Aventures du Jeune Olbon*. It is a story, told in dramatic form, of a young man who, having killed a fellow creature in a duel, and having simultaneously got his love affairs hopelessly entangled, wanders about the world in disguise, and ultimately takes a pistol and blows out his brains in the midst of the ruins of an ancient castle. The play is dedicated to the memory of a certain young man called Lenz, who had gone mad and committed suicide; and the author's brief preface reads like a defiant challenge of the world of cold conventions. Here are the words of it:—

> "*Voici les erreurs, les infortunes des cœurs sensibles; lis, Ame froid, et condamne.*"

This, most emphatically, is not the average temperament of the average mountaineer. The utterance seems rather that of some decadent poet who detests the open air;

and it is hard to believe that the man who wrote that preface was the same man who afterwards described his observations on Mont Perdu in the following prosaic terms :—

"My barometer, placed upon the crest of the cap of snow, after due correction, stood at 18i. 11.14l.—at Tarbes it was found at the same time to stand at 27i. 1.47l. The difference of logarithms then give 1,550 *toises* for the vertical height of the measured column. On the other hand, the thermometer at Tarbes stood at 25° 5′—by Réaumur's scale, and at the summit of the peak at 5° 5′ by the same scale ; which leaves to be added, agreeably to Mr. Trembley's formula, 12.11 *toises*, and determines the height of the column to be 1,562.11 *toises*. . . . Now Vidal's trigonometrical observations fix the elevation of Mont Perdu at 1,599 *toises* beyond that of Tarbes ; which makes a difference of at least 37 *toises*, or $\frac{1}{435 \cdot 2}$ of the measured column. Mr. Laplace's formula augments this difference more than double ; and so does M. De Luc's, but Schuckburgh's correction of the latter brings the result very exact of the formula of the former."

Between the penning of these two typical passages a considerable mental growth has evidently taken place ; and it is just to add that Ramond, like Goethe, got rid of his pessimism quickly. The mountains happily served him for a tonic. He went for a walking tour in Switzerland, and came home cured. On his return to France, he translated the Swiss Travels of the Reverend William Coxe, adding many suggestive notes and comments of his own, and so attracted the attention of the famous Cardinal Rohan, who made him his confidential secretary. On the Cardinal's behalf, he went to England to collect evidence of the sale of the gems composing the celebrated Diamond Necklace ;

and on the Cardinal's behalf he also undertook sundry missions to that notorious impostor, Cagliostro.

An anecdote told of this period of his career shows that the scientific spirit was already dawning in his mind. He used, we are told, to act occasionally as assistant—or, one might say, as demonstrator—to the great magician; and one day Cagliostro sent him to fetch a certain powder, with magic properties, which he required for an experiment. Instead of producing the particular powder demanded, Ramond brought a powder of his own manufacture, composed of snuff mixed with tobacco ash. When he observed that the experiment ran its normal course, and that the magician was unaware of the trick which had been played upon him, he drew certain inferences of his own.

When Cardinal Rohan fell into disgrace at the French Court, Ramond went to live with him in the country; and it was not until the Cardinal's partial restoration to favour, in 1787, that he felt free to carry out the project which he had long cherished of scrambling in the Pyrenees. Then he travelled straight to the Pic du Midi, where he met Reboul and Vidal, sketched out his plan of campaign upon its summit, and, before the summer was over, had climbed Maladetta, and every other important eminence in the range, with the single exception of Mont Perdu. *Observations faites dans les Pyrénneés* is the title of the book in which he told the story of his experiences. By an unhappy hazard it was published almost on the eve of the destruction of the Bastille, and so failed to attract attention, because the reading public had more exciting things to think about. The pity is the greater, because it is a book with a peculiar charm, which is not equalled—is hardly even approached—by any other of the early records of mountain exploration. Bourrit, De Luc, De Saussure,—interesting as they are—are all read with far less interest than Ramond.

Not that he met with any thrilling adventures; the Pyrenees hardly lend themselves to thrilling adventures as the Alps do; there was hardly any danger, save from brigands, and Ramond, travelling unarmed, and with empty pockets, had no fear of brigands. So that the charm of his narrative is of quite a different character; and the most striking thing is that the book owes its special note of distinction to the ideas that were working up to that very French Revolution which was to have such a fatal effect upon its sale. Ramond writes as Rousseau might have written, if Rousseau had been a mountaineer. He is a mountain gymnast of the first order—hardy enough to revel in fatigue—practical enough to invent a new kind of *crampon.* He hobnobs with shepherds, huntsmen, and smugglers; he dwells with gusto on the delights of a meal of "rye-bread and onions," boasting that this is a sort of pleasure which the pedestrian, alone among travellers, can enjoy. It gives him keen enjoyment to be received with open arms by lawless peasants, who believe him to be a deserter from the armies of the King of France. Caught in a storm, high up above the snow-line, he wishes that he could build himself a hut there, so as to observe and study the forces of nature during their hours of riot.

"What a spectacle it would be," he writes, "when the storms of autumn descended upon the place, as though it were their own peculiar domain; when the fleet izard and the mournful crow, sole dwellers in this wilderness, had fled before them from the heights; when the light and powdery snow, falling from slope to slope, and blown from rock to rock, had swamped the whole waste beneath its capricious billows; when the mountain peaks, wrapped in impenetrable mist, had disappeared from view! What battles then! What whirlwinds! . . . And what a stillness when the skies no longer thundered, and winter, victorious at last, had no more battles to fight; when the pale sun only appeared in the dark heavens to throw a sidelong glance upon the frozen peaks, and in the long gloom of the nights the moon seemed to draw near to pour upon them, with its beams, the piercing cold of the skies, passing sorrowfully over their wildernesses, as though over the tomb of nature, and sympathising with places that lay tranquil with the peace of death."

Only a man with a natural taste for hardship could have written in that key after a day passed in a mountain snowstorm under the inadequate shelter of a slab of rock. But the thing that really arrests the reader's attention is the discovery that, while Ramond lived this life of toil and exposure, so calculated to deaden thought, or at least to concentrate it upon the needs and emotions of the passing hour, his brain never ceased to be seething with those new ideas which were presently to turn France upside down. It seems strange, for example, that one of the early mountaineers should also have been one of the early Free Traders. Yet here we have Ramond shouting aloud from his mountain fastnesses against those protective tariffs, which, in spite of the efforts of reformers, have not yet relaxed their grip upon his country.

"Ah! surely it will one day be a commonplace among the nations that trade should have no limits set to it, that no barrier should be set up to interfere with the free exchange of the products of industry and agriculture; that prohibition is a vain device for conferring upon countries and their productions a value that does not belong to them; that the wealth of nations depends upon laws that these considerations cannot alter; that it is not tariffs and import duties that give their value to the soil, the situation, and the inhabitants of an empire; that the prosperity of an empire depends upon the equity of the social compact, and upon the simplicity of the laws; that it was an error worthy of the barbarism of the middle ages that established so many civil and fiscal barriers between man and man; that the interest of the individual, enlightened by experience and guided by competition, provides commerce with a better code of laws than any statesman could decree."

This, though a little vague, is very modern; and it is only one of the many new ideas that were fermenting in Ramond's mind while he was climbing. We find him sighing for the return to that state of nature in which, according to the gospel of Jean Jacques, mankind had lived before the conclusion of the Social Contract. "Laws of our legislators," he exclaims, "harmonise for once with those of Nature! Do not condemn what Nature approves! Do not approve what Nature condemns! Otherwise you will be superfluous and vain." He is also carried away by the doctrines of the philosophers who taught that human nature was perfectible. "How can it be," he asks, "that Nature, whose whole tendency is to bring things into harmony, should omit, as it improves the face of the earth, to create also a race of men worthy to breathe a purer air, to cultivate more fertile fields, and to associate the spectacle of wisdom and happiness with that of universal peace?"

Last of all, we find Ramond practically prophesying the coming Revolution, in an address to the Basques, who, according to him, inherit the destiny of the ancient Gauls. That destiny, he announced,

"Victorious, at last, is about to regenerate France. The fields and the flocks will be held in the same high honour as of old; the people will recognise their importance and their dignity; the great ones of the earth will need the support and the suffrages of the nation, in order to be sure of their greatness. The Republic of the Gauls will be born again under the sheltering protection of a gentle authority which all accept; we shall have something better, henceforward, than a State and the subjects of the State—to wit, a fatherland and its citizens . . . Oh! hope of all good Frenchmen, may'st thou not be vain! May the destiny of the Gauls triumph! May it extinguish the last fermentations of that leaven of pride and discord which the barbarians implanted in our bosoms! May the most brilliant of the nations, learning also to be the wisest and the happiest, become the admiration of the world of which it has hitherto been the envy!"

It is truly a strange passage to find in a book which only purports to be a narrative of climbing. But it is not strange—on the contrary, it is the most natural thing in the world—that the climber who wrote thus of the Revolution which he saw coming should have taken an active part in that Revolution when it came. So it is only a few months before we see Ramond the mountaineer transformed into Ramond the member of Parliament, and fulfilling, in that capacity, the thankless *rôle* of a moderate reformer. His sturdy common sense was shown in one shining speech in which he implored his fellow members not to talk theology when they were assembled to talk politics. In another harangue, he pleaded against the disbanding of the Royal Guard, and opposed the laws directed against the *émigrés*. But the Revolution went too fast and too far for him, as for a good many of his contemporaries. The day came when his head was in danger and he had to run to save it. He knew of no better place of refuge than the Pyrenees, and though the autumn was already well advanced, he travelled straight to the snow-slopes of the Marboré, where he shared the hard life and the coarse black bread of the peasants. Though he was close to the frontier, and knew that soldiers were searching for him, he refused to seek sanctuary in a foreign land. He was of those, he said, *qui respectaient jusque dans son délire là mère qui les frappait.* So the inevitable happened. The day came when the soldiers caught him, and he was lodged in gaol at Tarbes.

It was his good fortune to be lost among the mob of suspects who, just then, crowded the prison. Nobody knew why he was there; his enemies had forgotten that he had been arrested; and a friend appealed to Carnot to use his influence for his release. "*Il est trop heureux qu'on l'oublie*," was the great War Minister's reply; and there can be little doubt that, in Ramond's own interest, it was the most useful answer that could have been made. For Thermidor was coming; and presently Thermidor came; and, two months after Robespierre's death, they opened the prison doors and let Ramond go, without even requiring him to stand his trial. Though winter was beginning, he once more set out to climb the Pyrenees. But the Pyrenees could not just then be climbed. War was, by this time, raging there. The hillsides bristled with bayonets; hostile armies watched each other on all the passes; and Ramond got no more mountaineering until, two years later, the Republic gave him a small appointment as Professor of Natural History at that same town of Tarbes in which the Jacobins had imprisoned him.

Then he got as much climbing as he could wish for. But the iron had by this time entered into his soul. His greatest climbing achievements belong to this period of his life; but the history of literature shows few sadder contrasts than that between the Ramond who published *Observations faites dans les Pyrénées*, in 1789, and the Ramond who published *Voyages au Mont Perdu* in 1802. We see his sorrow, not only in the bitter cry which occasionally breaks from him when he recalls the days of his sufferings—the days when, "reduced to the humble condition of the shepherds, I had no library but my memory, and no scientific instruments but my senses." The contrast stands out poignantly in the altered attitude of the man towards human life. All the old faiths, and all the old enthusiasms are shattered. There is no longer a shadow of the old belief in the perfectibility of human nature, nor any jubilant anticipation of a good time coming, nor any confidence that France is ever to be regenerated by any one or any thing. The climber is no longer enamoured of solitude, but is glad to have companions on all his expeditions. The Rousseau influence is as dead as the Goethe influence. Nothing, in short, remains of the old Ramond beyond his grim determination to get to the tops of the most difficult mountains, and to the bottom of the most difficult scientific problems which their existence raises.

The actual ascent of Mont Perdu—the most difficult, though not quite the highest, mountain in the Pyrenees—was not accomplished until 1802; and there is no account of it except the very technical and prosaic one from which a quotation was made at the beginning of this chapter. Two previous attempts, however, made, respectively, in August and September, 1797, are described at length in Ramond's book; and from the account of the second of these, which only just missed success, it is easy to form a picture alike of the difficulties encountered and of the spirit in which they were faced. M. Louis Figuier, indeed, in his *Earth and Sea*, having his eye keenly fixed upon picturesque effect, boldly takes Ramond's story of his failure, and, altering the end, presents it to the reader as Ramond's story of his triumph; but that is an inaccuracy in which it is not absolutely necessary to imitate this ingenious and entertaining writer.

Ramond's companions, on this occasion, were two young men called Mirbel, and Pasquier, and M. Dralet, Judge of

Auch, who subsequently wrote a book about the Pyrenees, which is of no particular importance. Three guides were taken, and the party spent a night in the hut of Abassat-Dessus, in Estaubé, bringing plenty of firewood with them to guard against the cold. At daybreak they started again, getting out of the *cirque* in which they had encamped, by means of a snow *couloir*, which led up to a steep and badly-crevassed glacier, in which the *crampons* would not bite, and on which even the iron points of their alpenstocks hardly made any impression. Ice-axes, of course, were not yet invented in the year 1797. "It was," Ramond declares, "like ascending a ladder of ice. There was no possibility of zigzagging, and so mitigating the steepness of the gradient. The angle of inclination continually increased, and the precipice continually grew more profound." He continues, graphically:—

> "We proceeded thus for more than a couple of hours, and then we had only accomplished the least difficult portion of our task. We were approaching a hillock which rose in the midst of the glacier; we did not know how to take it, and were at the end of our expedients. The guide Rondo proposed to turn it by climbing along the edge of the glacier, which we had hitherto so carefully avoided—an *arête*, sharp as the blade of a knife, and separated from the rocks by a wide space that opened before us like a funnel. This proposal, which we should have voted ridiculous an hour before, now afforded the only means of bringing our perilous adventure to an honorable termination. A dozen steps carved in the ice took us on to this *arête;* but we had to knock away the cornices, and test the ice with heavy blows from our sticks, to assure ourselves that it would bear our weight. In this way we succeeded in advancing thirteen steps in twenty minutes, balancing ourselves on the slippery track, with precipices to right and to left and behind us."

A halt was called. Ramond's spectacles fell into a crevasse, and could not be recovered. The sight of a horsefly and an earwig taking their ease in slippery places in which the lords of creation suffered constant inconvenience moved him to philosophical reflections by the way. "How profound," he cries, "is the obscurity of final causes! How distressing is the disproportion between mental faculties and physical powers! Man measures the heavens, and is tied down to the earth; he weighs the air in which the eagle floats; but the balloon bursts in that air and precipitates the observer to the ground. A feeble insect plays about here where I have to hold on." Then, after this brief digression, the philosopher returns to his climbing:—

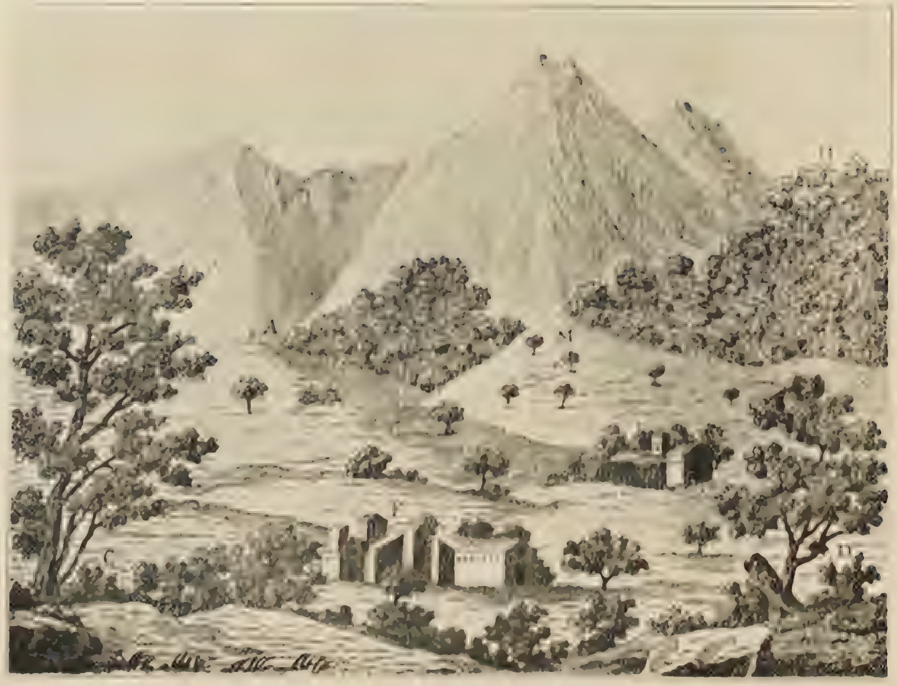
"At every instant this ridge exposed us to fresh perils. Twice we were stopped by projections of rock which barred our path. We could neither go up nor down, but had to worm our way round them, at the risk of losing our balance and falling. Presently we found that we could follow the *arête* no further, and had no place of refuge except the rocks which we had at first supposed to be inaccessible. They are, it is true, carved into steps by the stratification; but, to realise the situation, you must first imagine a staircase in which the height of the steps is almost always greater than their width, and the ascent steeper by one-third than it should be, and then you must picture to yourself all the irregularities which can conceivably result from such an arrangement of the rocks, and our own uncertainty of what the rocks would be like when we got higher. Then, at last, you will understand with what eyes we looked upon this last resource that remained to us.

"Here, however, we had to hoist ourselves up from step to step. The first man was pushed up by the man beneath him. Once safely anchored, he, in his turn, gave the other a hand. The risks, in the two cases, were at least equal, even if the disadvantage did not rest with the latter. For those who were ahead could not make a false step without endangering the rest of the company, or loosen a bit of stone without sending it flying over the heads of the others. For my own part, I was hurt rather badly by one of these falling stones, as I could only stiffen myself and let it hit me, my position not allowing me to get out of the way. This final scramble lasted more than an hour."

Such is the story of the great attempt upon Mont Perdu. Modern climbers, with their greater experience, will not allow that the rocks are quite so bad as Ramond represents; and the late Mr. Mummery would certainly have made little of them. Still, Mont Perdu is very far from being one of the easy mountains, and Ramond really did a wonderful bit of rock climbing for the year 1797—a far better bit of mountain gymnastics than was accomplished by any of the contemporary climbers of Switzerland. If it had not been for his companions, he would probably have got to the top. But he turned round to look at them, and reading in their faces "a sort of sadness, produced by their long anxiety," concluded that accidents were likely to happen if he did not make haste and conduct them back to the valley. Consequently, his final triumph was delayed until the year 1802; but the account of his observations and experiments which he then read before the Institut Nationale is, as has been said, a paper of such purely technical interest, that there is no purpose to be served by quoting from it here.

It only remains, therefore, to say a word or two about the subsequent career of this intrepid explorer of the mountains. Napoleon heard Ramond speak at the Institut Nationale, and was so impressed by his abilities that he decided to employ him in the public service. So he made him a Prefect at Puy de Dôme; and if he had not been a little too free in his criticism of the Napoleonic *régime*, he would probably have got something better. As it was, he assisted to found and popularise the watering-place of Mont Dore, and devoted so large a proportion of his time to experiments with the barometer that a wag playfully accused him of using this instrument to take the heights of the conscripts. In 1813 he retired from his office and went to live in Paris; but in 1814 a terrible calamity overtook him. He had accumulated a great many manuscripts, which he proposed to publish when times were quieter and people had more leisure for reading. The Cossacks invaded his house and ruthlessly destroyed every one of them. "It was a long way to come," he plaintively remarked, "to injure an old man who thought that he had not an enemy in the world."

It was a terrible blow to him; for he was nearly sixty years of age, had neither the time nor the energy to begin the work over again, and was deprived at a stroke of the occupation which he had planned for the evening of his days. To console himself, so far as consolation was possible, he returned to public life. After Waterloo, Louis XVIII. gave him the office of *Maître des Requêtes;* and in this capacity he paid off the war indemnity. His engaging manners and his idiomatic knowledge of the English language enabled him, it is said, to obtain concessions which astonished no one more than the ambassadors from whom the concessions were obtained. He died, in 1827, at the age of 72, and Cuvier pronounced his eulogy before the Académie des Sciences.



OLD VIEW OF GRAN' SASSO D'ITALIA. [*To face p.* 233.

CHAPTER XXV.

Orazio Delfico, the Pioneer of the Apennines.

We have seen that the early Italian mountaineers were few in number, and from Leonardo da Vinci downwards were mainly interested in Monte Rosa. The Apennines, for whatever reason, attracted little of their attention; and their highest peak—known indifferently as Monte Corno and the Gran' Sasso d'Italia, or Great Rock of Italy—was still reckoned a virgin summit, eight years after Mont Blanc had been ascended.

The first man to climb it—the pioneer of the Apennines, in fact—was a certain Orazio Delfico. He wrote a pamphlet on the subject, in the form of a letter addressed to his uncle, the more famous Bernardino Delfico, and the letter was printed and bound up with his uncle's book, *Dell' Interamnia Prestuzia*, published at Naples, in 1814. The book is rare, and contains, among other interesting things, two remarkable drawings of the Gran' Sasso, which are reproduced in the present volume.

As we know practically nothing about Orazio Delfico beyond the fact that he accomplished this ascent of the Gran' Sasso d'Italia, we may proceed at once to summarise his narrative—the original Italian of which is printed in full in an Appendix.

"Dear and illustrious uncle," he begins. "Thinking that it might be a relief and an agreeable distraction from your grave occupations and the worries of the tumultuous *forum* to divert your gaze to other objects which pleasantly attract the attention of the man of culture and refinement, I feel that I can easily attain that end by presenting to you objects which are quite remote from your present occupations, by inviting you to contemplate the works of Nature, and by taking you with me, though without any danger, through the precipices and valleys which I have visited with shuddering horror, on the mountain, the height of which I have measured."

There follow some eloquent reflections, which may be omitted, concerning the progress of human knowledge, the growth of human curiosity, and the manner in which the mountain-tops in particular invite investigation by philosophers. Special mention is made of the philosophers who first scrambled in the Andes, and of the philosophers who measured the height of Teneriffe; and then the writer comes to his own case:—

"Having been introduced to the study of Nature as an inquisitive youth, and seeing, all day long, from my windows, the summit of the Gran' Sasso d'Italia, it was impossible for me to resist the impulses of curiosity and imitation. The mountain having, so far, only been saluted by naturalists from a distance, I was the more lured on to the enterprise; while the gentle remonstrances of my father (which were far from amounting to dissuasion), the descriptions and reports of the dangers, the small hope that there was of reporting any startling novelty, the toil and real peril to which I exposed myself, did not avail to turn me from my resolution."

The excursion was to have a scientific character; the height of the mountain was to be ascertained. So Delfico provided himself with two barometers and four thermometers, made arrangements with his "brave and learned cousin, Signor Eugenio Michitelli," to record the readings in the plains, for comparison with those upon the mountain-top, and started upon his journey on the 15th July, 1794.

"On my ascent to this Olympus, my first day's journey was to Ornano (ten miles south-east from here), a little place belonging, by feudal right, to the illustrious family of the Valley Mendozza. It is situated to the north-east of the mountain, on a small plain which rises up into an agreeable and fertile stretch of country—made fertile by the streams which regale it with all the rich ingredients formed by the decomposition of the plants of the mountain itself, which combine with the situation to render the temperature very mild in winter. Having lodged here in the house of Signor D. Luigi Getrilli (who, together with his two studious sons, subsequently furnished me with escort and useful company), I observed the instruments, and found the barometer at 26 : 9 : 00, and the thermometer at +13 in the shade, and +27 in the sun."

The next few pages partake of the nature of a scientific disquisition, explaining "the method of M. de Luc," and the character of the calculations to which that method lends itself. Then, after the digression is over, the climber gets at last to his climbing.

"On the 29th, at 10.45 in the evening, I started with my hosts, my servants, and other people of the locality who had had practical experience of the mountain; and, after proceeding for about four hours, we reached a place called Arca Pietra H. (Plate II.), where we agreed to dismiss our carriages, and trust ourselves to our own legs. Then, at the appearance of the first rays of the rising sun, I spent some time in admiring the peak of the mountain, which was lighted up, while, at its base, the shades of night were still but little scattered. Fortunately, there was a break in the clouds of vapour which cover it here and there, and give it a venerable appearance. Then, with the pleasure that all grand impressions give, I saw the lower portions of the mountain displaying all the splendour of the most vigorous vegetation, with ancient woods and pleasant meads, making a shifting alternation of light and shadow; while, when I lifted my gaze, the mountain revealed itself to me, throughout all the remainder of its height, bare of all vegetable growth, lacerated and ill-used by the long ages in which it must have been the target of the most violent storms."

While Delfico stood admiring, the clouds thickened, and he feared that rain was to be added to the other perils of the way. His experienced companions, however, assured him that the direction which the clouds were taking was, on the contrary, an indication of fine weather; and the climber presently concluded that the mist contributed to his security, because, his attention not being distracted by any distant object, he was able to concentrate his thoughts upon his foothold. Moreover, it was a relief to him to be unable to see "the precipices and profound abysses which lay below us." So he progressed, "slowly, and with difficulty," until he reached "an extensive stretch of level ground entirely surrounded by lofty rocks, which made of it as it were a majestic shell." And he continues:—

"To give you an indication of the height, it will suffice to say that it is continually covered with snow, not quite so hard as ice, but so solid and firm that it received no impression from the vigorous tread of the peasants who accompanied me. In the midst, there flows from the snow, a perennial stream of water, which presents a remarkable phenomenon of not freezing, in spite of the fact that it flows over a bed of solid ice."

Then, after speculations concerning the cause of the phenomenon, which need not detain us:—

"You can easily imagine that the rest of the ascent was most rough and unpleasant. In fact, the precipices are more abrupt, the rocks steeper, the abysses more profound, while the way is more rough, and, in truth, makes one shudder. The people of my company assisted me, in that situation, with true affection and concern, and as though their interest in the matter was equal to my own. Proceeding on our way, we rose above the clouds, and that, in addition to making us rejoice in the magnificent spectacle of a clear sky at a time when the air below us seemed an immense sea of mist, was also advantageous to us in concealing from our view the precipices and huge abysses beneath our feet."

In this way apprehension continued to be the substitute for adventure until the pioneers attained their goal, when—

"It is unnecessary to tell you that I needed repose, and that I instantly experienced other sensations besides those of lassitude. It is the observation, in fact, of the celebrated De Saussure, and of the other mountain travellers, that, at every little climb, one feels an extraordinary and distressing weakness, but that, similarly, at every little interval of rest, one recovers one's strength, and feels a certain agreeable jollity, which speedily makes one forget what one has undergone. My experiences in the course of my difficult climb were renewed in a more acute form when I arrived at the desired goal of my fatiguing journey. The summit of the mountain presents a small inclined plane—a coverlet, as it were, or a large stone table, laid upon the uniform mass of the rock itself, and serving as a bed for all our company to lie down upon.

"I cannot easily explain to you how mixed were my sensations at finding myself, for the first time, on the top of so high a mountain, or how the horror of the dangers that I had passed through, and the sight of rocks of the most Alpine character, of abysmal valleys, of terrifying precipices, of the magnificent *débris* which the mountain exhibits over the greater part of its surface, were more than compensated by the view which extended over the widest area that my eyes had ever beheld, and by my inward satisfaction at having arrived at the point which I had wished to reach. If the weather had been quite clear, I should have enjoyed the splendid picture of seeing the two seas which wash the shores of Italy, and, certainly, the opposite coasts of Dalmatia as well."

Having rested, Delfico brought out his instruments and made his observations. The barometer was at 19 : 8 : 25; while in the valley, at the same hour, it was 26 : 8 : 50. Whence, by the proper use of the formula of M. de Luc, it was demonstrated that the Gran' Sasso d'Italia was 8,039 feet above Ornano, and 9,577 feet above the level of the sea.

These points attended to, the party started on their homeward way. A little longer delay, Delfico says, would have been grateful to him, but his companions would not hear of it. It was half-past four in the afternoon; the weather looked threatening; and they were afraid that darkness would overtake them. Rain actually came on, though the shower was only a short one; and at nightfall they were once more safely housed in their lodging at Ornano.

And there the climbing story ends, though the pamphlet itself drags on for several more pages. Delfico boasts that, though the Gran' Sasso is not to be compared with Mont Blanc—"the highest mountain of our hemisphere"—it is, at any rate, higher than Vesuvius, and nearly as high as Etna; and he devoted some further attention to it in order to satisfy his curiosity on two important points. He wished to know whether there was gold in it, and he failed to find any. He also wondered whether the eminence dated from the Creation or had been formed subsequently by the operation of natural causes; and decided, after weighing all the *pros* and *cons*, in favour of the latter hypothesis. These matters, however, are of no absorbing interest to the student of the history of mountaineering; and the lists of beasts and birds which Delfico noticed on the mountain can also be very well left unquoted. But this brings us to the end of the letter—to the passage, in fact, in which Delfico desires his uncle to take care of his health, assures him of his sentiments of affection and regard, and declares that he kisses his hand.

CHAPTER XXVI.

The First Lady Mountaineers — Marie Paradis and Henriette d'Angeville.

Though the Germans came late into the field of mountain exploration, Germany can at least claim the first lady mountaineer—a Madame Harsberg, of Hamburg, whose ascent of the Montanvert is recorded in the *Journal de Genève* of January 3, 1789. She is entitled to the credit that belongs to all pioneers; but the Montanvert is not such an important eminence that it is necessary to dwell upon her exploit. Not long afterwards, the Historian of the Alps, whose wife was the first lady to visit Chamonix, built a refuge on the same hill, and his daughter climbed it with him, and helped him in laying out something in the way of a garden there. Ascents of the Buet by women, about 1806, are mentioned by Albanis de Beaumont, but details are wanting; and then we come to the famous ascent of Mont Blanc by Marie Paradis, the Chamonix peasant girl, in 1808.

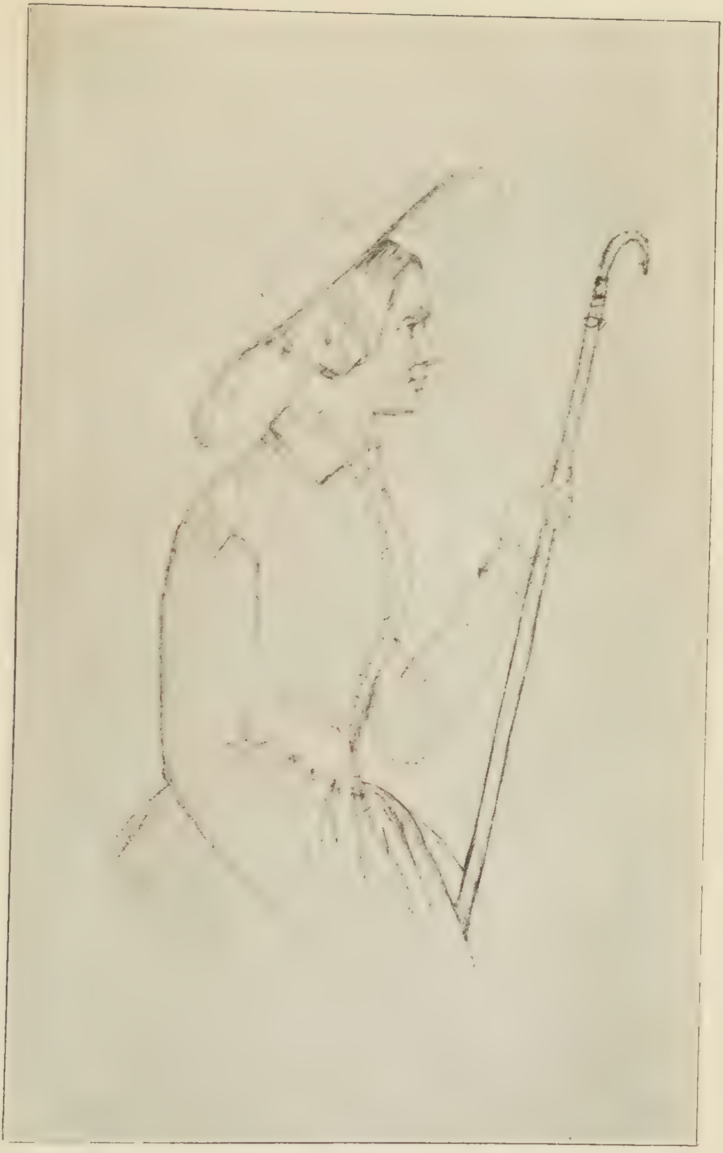
Even that ascent, however, has only a remote connection with mountaineering annals. Marie Paradis was simply hauled to the summit by her male companions, and in later life admitted the sordid purpose of her expedition in these candid words :—[1]

"Thanks to the curiosity of the public, I have made a

---

[1] Her own expressive language is quoted by M. Durier, and shall be given in the original *patois* :—

"J'étais une pauvre servante. Les guides me dirent un jour : nous



HENRIETTE D'ANGEVILLE. [*To face p.* 240

very nice profit out of it; and that was what I reckoned on when I made the ascent."

Two years later, in 1810, the Empress Josephine was escorted, by sixty-eight guides, to the top of the Montanvert. In 1822, we find Mrs. and Miss Campbell crossing the Col du Géant. Mr. Frederick Clissold was making the ascent of Mont Blanc on the same day; and he remarks, in a footnote to the pamphlet in which he related his experiences,

"These ladies have shown how female intrepidity may finally surmount danger, where even the experience of guides may fail. Previous to my arrival at the Priory they had expressed a determination to ascend the summit of Mont Blanc, at the next season of their return to Chamouni."

The determination, however, does not seem to have been carried into effect; and, passing over a period of sixteen years, we find our next lady mountaineer in a French lady—Mademoiselle Henriette d'Angeville. Mademoiselle d'Angeville was, at any rate, the first tourist to climb the great white mountain; her contemporaries were so carried away by their enthusiasm for her that they called her the Bride of Mont Blanc; and seeing that this was only the

allons là haut, viens avec nous, les étrangers voudront te voir et te donneront. Cela me décide et je partis avec eux. Au Grand-Plateau, je ne pouvais plus aller, j'étais bien malade, et je me couchai sur la neige. Je soufflais comme les *poulailles* qui ont trop chaud. On me donna le bras des deux côtes, on me tira; mais aux Rochers-Rouges plus moyen d'avancer, et je leur dis: *Licha moa dans une crevasse et alla où vo vodra.* Il faut que tu ailles au bout, me repondaient les guides. Ils me prennent me tirent, me poussent, me poussent et enfin nous sommes arrivés. Une fois sur la cime je n'y voyais plus clair, je ne pouvais plus ni souffler ni parler: ils m'ont dit que ça faisait pitié de me voir."

first of many ascents which she accomplished, she certainly has a better title than any one else to be considered the pioneer of mountaineering as a pastime for her sex. Her story is told in an admirable monograph contributed by Mademoiselle Mary Paillon to the *Annuaire du Club Alpin*, and must be repeated here.

Henriette d'Angeville, who belonged to the old French aristocracy, was born at Semur-en-Brionnois, in the midst of the Reign of Terror. Her grandfather, formerly President of the Parliament of Dijon, had just been guillotined by the Republicans. Her father was, at the time, a prisoner of the Republic at Semur, but was permitted to be present at his daughter's birth, under an escort of *gendarmes*, one of whom appended his signature as witness to the *Acte de Naissance*. All the furniture of the Semur house had been declared national property and sold, so that the future Bride of Mont Blanc first saw the light upon a truckle bed without a curtain, and in a room which, save for that truckle bed, was absolutely empty.

After Thermidor, the family went back to live in the Chateau de Lune, at Bugey, in the Department of Ain; and it was in this hilly neighbourhood that Mademoiselle d'Angeville got her first experience of scrambling. Subsequently, she climbed a good many of the hills in the Jura; but she was absolutely without experience of the snow-peaks when, in 1838—at the age, be it observed, of forty-four—a visit to Chamonix decided her to attempt the great ascent that was to make her famous. Taking a single excursion to the Jardin to acquaint herself with the peculiarities of glaciers, she returned forthwith to Geneva to make her preparations, and to overcome the remonstrances and opposition of her friends.

This was difficult—more difficult, indeed, than the actual climbing of the mountain. The enterprise was denounced not only as dangerous, but as unfeminine. Every one who knew Mademoiselle d'Angeville called upon her to dissuade her from the adventure. Out of a population of 25,000 souls she declared that she only found five persons who sympathised with her ambition; and things came to such a pass that she had to shut her door and refuse to receive deputations. An English friend, Lady Cullum, implored her, with tears in her eyes, to reconsider her resolve. But Mademoiselle d'Angeville remained firm, and went on with her preparations. She went to see her solicitor, and instructed him to make her will; she consulted her medical adviser on the precautions to be taken for the protection of her health; she procured a passport from the Sardinian Consul, and hired a carriage and drove to Chamonix, where she engaged the services of half-a-dozen guides and an equal number of porters.

The next thing to be done was to lay in an adequate stock of provisions. A full inventory of the refreshment department has been preserved, and is sufficiently interesting to be reproduced at length. It shows no niggardliness, but, on the contrary, a resolute determination that there should be no danger of any of the party fainting by the way. They took :—

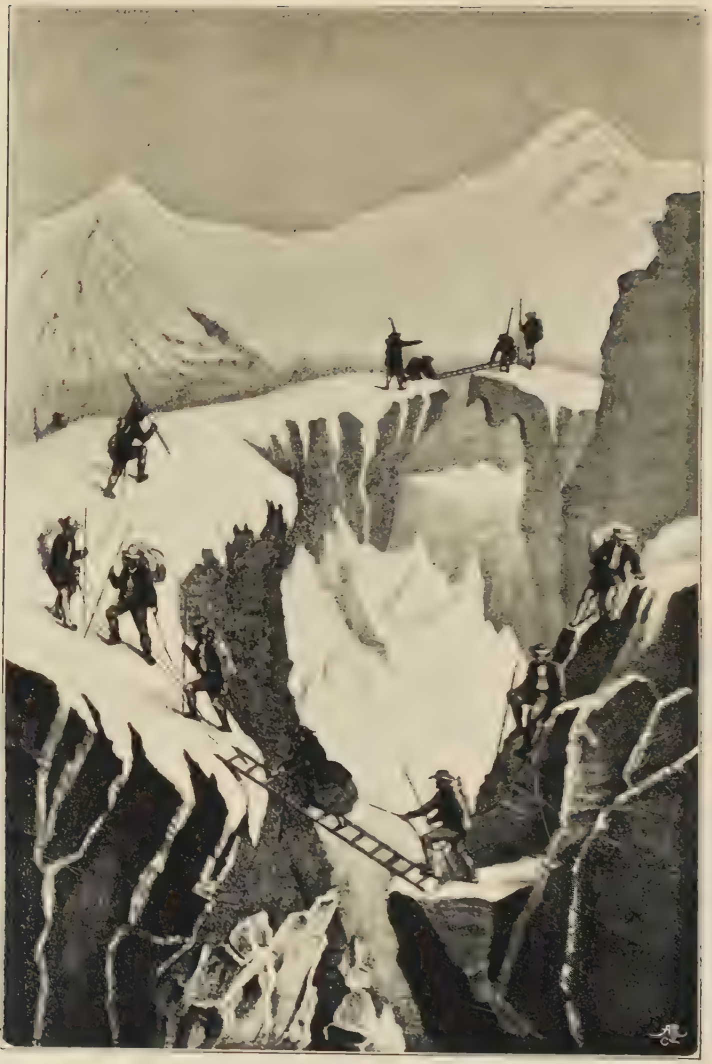
2 legs of mutton.
2 ox tongues.
24 fowls.
6 large loaves of bread.
18 bottles of Saint Jean.
1 bottle of brandy.
1 bottle of syrop.
1 cask of vin ordinaire.
12 lemons.
3 lbs. of sugar.
3 lbs. of chocolate.
3 lbs. of French plums.

These were the general provisions for the party. For her own personal refreshment, Mademoiselle d'Angeville also carried:—

1 blanc manger.
1 gourd of orgeat.
1 gourd of lemonade.
1 pot of chicken broth.

Her dress was another matter to which Mademoiselle d'Angeville devoted particular attention. "One cannot," she said, "go to the Court of the Monarch of the Alps in a simple brown holland dress and muslin bonnet. Such a visit requires severer, and above all warmer, apparel." So she designed an appropriate costume which she presented, after it had served its purpose, to M. and Madame Eisenkramer, of the Hotel de l'Union. It consisted of underclothing of red flannel; woollen stockings drawn over her silk stockings; solid nailed boots; knickerbockers of Scotch tweed lined with flannel; fur-lined gloves; a short blouse of the same material as the knickerbockers, with pleats to protect the back and the chest, and fastened round the waist by a belt, a bonnet lined with fur, and a straw hat lined with some green material. Besides this there was a velvet mask, a veil, green spectacles, an iron-shod alpenstock, a plaid, and a fur-lined pelisse.

Her appearance, thus apparelled, must have been impressive and picturesque. A water-colour drawing made at the time under Mademoiselle d'Angeville's direction, and reproduced in Mademoiselle Paillon's pamphlet, will show the curious exactly how she looked. But it must be added that this lady, whose authority on the subject of outfit for lady climbers is universally accepted, contends that, from the practical, as distinct from the æsthetic, point of view, the experience of sixty years has added few improvements.



MLLE. D'ANGEVILLE ON MONT BLANC.

[*To face p.* 245.

This, however, is a digression, and it is time to pass on to the actual climbing.

Attired and provided as has been described, Mademoiselle d'Angeville, after sitting up till past midnight writing letters to her friends, was up and ready to start at six. The galleries of the hotel were crowded, and the soldiers turned out to salute. "Those," writes the heroine of the excursion, "who saw our little caravan file up the valley, have told me since that it made a very good appearance. I did not walk—I flew; and more than once they called to me, 'Gently, gently!'" In this way the party got to Pierre-à-l'Echelle, and descended on to the Glacier des Bossons, where Mademoiselle d'Angeville again distinguished herself. When her guides offered to help her over a crevasse, inquiring anxiously whether "the lady could pass," she answered, proudly, "the lady can pass wherever two men have preceded her," and leapt across successfully. "She goes as well as we do, and is afraid of nothing," the guides concluded, and left her to her own devices.

At two o'clock in the afternoon the travellers reached the Grands-Mulets, where, as neither hotel nor refuge hut as yet existed, they had to pass the night in tents. Here an agreeable incident diversified the evening. Count Karol de Stoppen, a Polish nobleman, who was also encamping there, sent his card, with his compliments, by one of his guides, to Mademoiselle d'Angeville, and requested permission to call upon her in her tent. Mademoiselle d'Angeville consented with pleasure, and proposed that the two parties should join and organise a concert. This was done, and the guides sang their national songs until the sound of a distant avalanche frightened them into silence. Then they retired to rest, and Mademoiselle d'Angeville "prayed to God with fervour to preserve my companions from all accident, reserving until afterwards my personal supplications for success."

The night passed. The guides roused themselves one by one, "as in a scene of resurrection." The party breakfasted and started. An account of their experiences, contained in a letter addressed by Mademoiselle d'Angeville to Madame Augerd, was published in the First Bulletin of the Section de l'Ain of the French Alpine Club. It is a rare tract, but Mademoiselle Mary Paillon's admirable monograph provides the opportunity of quoting from it. The first lady mountaineer, it will be seen, suffered very badly from mountain-sickness, but fought against it with great determination.

"It was not," she writes, "until we reached the foot of the ice of the Grande-Côte that I had to struggle against two enemies of equal violence—*suffocating palpitations of the heart* when I walked, and a *lethargic drowsiness* whenever I stopped. It was not the sort of drowsiness that comes to one every evening, but an overwhelming sense of sleepiness which began in my eyes and passed through all my limbs. The efforts of will that I had to make to get rid of this torpor are more than I can tell you. I was obliged to wind up my will power as far as it would go, and in this way I obtained a nervous paroxysm of strength which lasted a few minutes and enabled me to stagger on for from seven to ten paces; then my heart beat again as though it would burst my chest, and when the suffocation came I threw myself on the ground, overcome by the stupefying drowsiness of which I have spoken to you.

"I was in this state of agony for four hours without thinking, for one instant, of giving up my enterprise. That will show you how deeply the idea was rooted in my mind. For there the remedy was: I had only to turn back and go down again to be completely cured. At one moment I thought that my carnal body was going to be the victim of the despotic wishes of my higher self. Then I said to my guides: 'If I die before getting to the top, drag my body up and leave it there; my family will reward you for thus executing my last wishes.' Thanks to God, I was able to drag myself along to the end without their help, and at the instant when my foot stood upon the summit, I recovered, as it were, by a miracle. A vivifying air circulated in my lungs; the drowsiness disappeared; the vigour returned to my limbs; and it was in the full possession of my moral and physical faculties that I admired the magnificent and imposing spectacle which presented itself to my gaze."

It was about half-past one in the afternoon when Mademoiselle d'Angeville thus achieved her great ambition. Her next proceeding was to drink (in milk) the health of the Comte de Paris; though she tells her correspondent that she does not want this fact to get into the papers, there can be no harm in referring to it now. Then, "seated on the mountain-top, with my face turned towards France, I wrote upon this throne of snow five letters, to show the people to whom they were addressed that I had not forgotten them." And then yet another interesting ceremony was performed.

The guides, proud of having escorted the first lady mountaineer to the top of the highest mountain in the Alps, solicited the further distinction of being allowed to kiss her. The request was unusual, but the circumstances were exceptional, and Mademoiselle d'Angeville raised no objection. "The kisses," she afterwards told Jean André de Luc the younger, "were so hearty that they may well have been heard in the Valley of Chamonix."

That was the last important incident in the day's vicissitudes. The descent began at ten minutes after two. A second night was spent at the Grands-Mulets. A mule, sent by Lady Cullum, was waiting for Mademoiselle d'Angeville at the top of the forest zone, but she would not ride it, lest envious people should say that she was tired; and her return to the village was a triumphant progress. Her friends shook hands with her, the people cheered, the Syndic came out to offer his congratulations, and the Chamonix correspondent of the *Journal des Débats* sent the following despatch to Paris:—

"All our valley is in excitement. Since the ascent by M. de Saussure, no event has made such an impression as that which we have just witnessed. A woman has had the courage to climb Mont Blanc; that woman is a French woman; she is said to be the sister of the Deputy of the Ain. The guides who accompanied this young lady never tire of boasting of the courage and strength with which she surmounted all the obstacles of this perilous and difficult journey. On the morning of her return the enthusiasm was indescribable. The cannon was fired; the people went out to meet her; all wanted to see this heroine; and the name of d'Angeville must henceforth be inscribed beside those of Jacques Balmat and de Saussure."

Such is the story, told, as far as possible, in her own words, of Mademoiselle d'Angeville's remarkable excursion. Our admiration is the greater when we recollect that she was already in her forty-fifth year when she undertook it, and that no other lady ventured to follow in her footsteps until the ascent sixteen years afterwards by Mrs. Hamilton. Nor was the ascent an isolated incident in an otherwise colourless career. Mademoiselle d'Angeville continued for many years to find her chief recreation in climbing mountains. The total number of ascents standing to her credit is twenty-one, including a winter ascent of the Signal de Retord in 1842, and an ascent of the Oldenhorn in 1863. The height of the Oldenhorn is only 10,250 feet, but Baedeker's comment is: "A steady head and sure foot necessary"; and Mademoiselle d'Angeville climbed it at the age of sixty-nine. Obedient to the shifting of the fashions, she had by this time given up knickerbockers and was climbing in a crinoline. It is rather pathetic than surprising to read that this inappropriate garment got torn to pieces on the way down.

An account of the scramble is quoted by Mademoiselle Paillon from a letter in which Mademoiselle d'Angeville described it to her friend, Madame Augerd. We learn from the letter that she slept in a *châlet*, and climbed for ten consecutive hours without a rest. Then the writer concludes:—

> "Seeing that night would overtake us before we could get back to the *châlet* where we were to sleep, I had a foolish fancy for sleeping on the peak itself, so as to see the moon rise and the sun rise; but my guide vetoed this proposal so energetically that I had to give it up and follow him through the labyrinth of ravines and rocks, where the darkness surprised us, and I said in my turn: 'I want to stay here until I know where I am and where I am going.' We were close to a precipice at the moment when I was thus opportunely obstinate.
>
> "To sum up: I am thoroughly well, and am suffering no unpleasant consequences from my mad freak (for my damaged feet were quickly healed). On the contrary, I have one recollection the more to add to those which I have stored up from the sight of the beautiful works of God. The Oldenhorn is my twenty-first Alpine ascent, and will probably be one of the last; for it is wise at my age to drop the alpenstock before the alpenstock drops me."

Even then, however, Mademoiselle d'Angeville had not concluded the term of her activities. A year later, when she was seventy, she was met in the train, between Lausanne and Montreux, by M. Charles Monastier, of the

Swiss Alpine Club. She had seen the tops of the mountains often enough, she said, and now she wanted to see the insides of them. So she was on her way to the Grotte des Fées at Saint Maurice. And she continued to live, with gradually dwindling energies, until the year which the French have such good reason to call terrible. Born during the Terror, she nearly survived to see the Commune, dying, of apoplexy, at Lausanne, in the seventy-seventh year of her age, a few days before Paris surrendered to the Prussians.

CHAPTER XXVII.

The Early Accidents—The Death of Eschen on the Buet—The Death of Escher on the Col de Balme.

An account of the early mountaineers would be incomplete without some reference to the early accidents. Fortunately, however, these were few in number, so that the subject can be dealt with briefly. One need not pause over the minor catastrophe as the result of which the Historian of the Alps rescued Prince de Galitzin from a roaring torrent; the Historian himself does not treat the occurrence at any length, or lay any particular stress on his own heroism. Nor is it necessary to narrate the calamity that overtook the careless tourists who fired off their pistols in the ice cavern of Arveyron, with the result that blocks of ice came tumbling down upon them. But there were two accidents in the early annals of mountaineering about which it will be interesting to say something.

First, then, of the death of Eschen on the Glacier of the Buet.

Eschen was a Dane, born at Eutinen, in Lübeck. Only twenty-three years of age, he was already favourably known as a scholar who had published a German translation of *The Odes of Horace*. On August 7th, 1800, he set out to make the ascent of the Buet with a M. Simpschen (or Zimpssen) and a guide whose name we do not know. What happened when they got upon the glacier has been described both by Bourrit in one of his books, and by Professor Pictet in a communication to the *Bibliothèque*

Universelle. Bourrit's version is perhaps the more graphic of the two.

"As they climbed over the snows," we read, "M. Zimpssen did not quit the guide, but M. Eschen went on two hundred yards ahead, and suddenly disappeared from view. Imagine their fright at this sudden disappearance! It was perfectly possible that he was only buried a little way beneath the snow; but the glacier is vast, and there was nothing to show them where to arrest their steps upon these deceitful snows. Frightened in their turn, therefore, not daring to take a single step forward without seeing themselves in the same danger, finding themselves alone in this vast solitude, with no one to help them if they should come to grief, they fly from the accursed place, and hasten to make their way down to Servoz."

Solidarity, it is clear from this, was not one of the virtues of the early mountaineers. We learn, however, from Pictet, that a search party subsequently recovered the climber's body; he had fallen to the depth of a hundred feet into a crevasse. Some unfinished letters were found in his pocket-book, and were afterwards printed; and one can still feel a pathetic interest in reading them. The first is to his father:—

"You see, my dear father, from the date of my letter, that I have undertaken a journey. I left Ramlingen on Tuesday, and Berne on Wednesday, and it will be a fortnight or three weeks before I shall be home again and embrace my dearly-loved pupils, Rudy and Sophie. There is no need to tell you that I am travelling on foot, and you will also guess that I am travelling with a friend; for the heart and the mind can only enjoy the beauties of Nature when conscious of the sympathy of some living being. Everything that is beautiful and sublime requires to be associated with the delights of love and friendship in order to penetrate the inmost recesses of the human soul."

This is the other fragment :—

"Dearest, how grand is Nature in these places, and how ceaselessly Nature draws us to the contemplation of the Being who is greater still! But I am tired of admiring. There is only one being that never wearies the heart—only one Divinity that is made for every hour of life—that is the better loved the oftener it is seen—and I am to see you again very shortly."

The disaster caused almost as great a sensation in Switzerland as did the more famous Matterhorn catastrophe of later times. An obelisk was set up in memory of the victim, and the inscriptions on its three faces merit quotation. On the first it was written :—

"To the Memory
Of FREDERIC AUGUSTUS ESCHEN,
Naturalist, Man of Letters, Poet,
Born in 1777, at Eutinen,
In Lower Saxony;
Engulfed in a Crevasse
Of the Buet Glacier,
The 19 Thermidor, Year VIII.;
Recovered from this Abyss by Jh. M. Devillar,
J. Claude and Bernard, his two sons, and Jh. Otll;
Buried in this place by the cares
Of A. M. d'Eymar, Prefect;
Monument erected
The 21 Fructidor, Year IX.,
Under the magistracy of
Bonaparte, Cambacères, Le Brun,
Consuls of the French Republic."

On the second :—

"THE FRENCH GOVERNMENT
HONOURS THE SCIENCES
AND THE ARTS,
PROTECTS MEN OF SCIENCE AND ARTISTS,
AND WELCOMES WITH HOSPITALITY
THE STRANGERS
OF ALL NATIONS
WHO VISIT THE SOIL OF THE REPUBLIC."

And on the third :—

"TRAVELLERS,
A GUIDE, PRUDENT AND ROBUST,
IS NECESSARY TO YOU :
DO NOT LEAVE HIM,
OBEY
THE COUNSELS OF EXPERIENCE.
IT IS WITH MINGLED SENTIMENTS
OF FEAR AND OF RESPECT
THAT YOU SHOULD VISIT THE SPOTS
WHICH NATURE HAS MARKED
WITH THE SEAL OF HER MAJESTY
AND HER POWER."

We turn to the second accident—the death of M. Escher on the Col de Balme, which was also an event that caused no inconsiderable noise. The victim was a young man of great promise and considerable position, alike in the political and in the scientific world. The story of his fatal misadventure is best told in Leschevin's *Voyage à Genève et à Chamouny* :—

"M. Esher, Secretary of the Grand Council of Zurich—a man who seemed destined to arrive at the highest position in his country,—was engaged in the study of various branches of natural history. He had travelled through the Alps of Switzerland, and was visiting the Alps of Savoy in order to increase his scientific knowledge. Arriving at the Col de Balme, he climbed a mountain situated towards the north. In spite of the representations of his guides and his friends, he obstinately insisted upon going over to touch an iron cross erected at the further end of an isolated rock, and only attainable by way of a narrow ridge of bare ice with horrible precipices on either side of it. It is alleged that he had a sufficiently clear head to get to the cross, and sufficient good luck to get back from it. Emboldened by the success of his rash feat, he took pencil and paper, scrawled a few wholesome hints to travellers, put the paper in a bottle, and, in spite of the renewed entreaties of his friends, set out to tie the bottle to the cross. This was done; but as he was turning round to come back, a glimpse of the precipices made him lose his head. He made a false step, and fell—a battered and mutilated corpse—to the bottom of the abyss. There was all the difficulty in the world in recovering his body, which was carried down to Bex, where it was buried with pomp. M. Bourrit, who was at Bex at the time, wrote the following verse on his tomb:—

> '*Aimé de ses amis, digne d'un meilleur sort,*
> *Escher aurait sans doute honoré sa patrie;*
> *Au désir de s'instruire il consacra sa vie,*
> *Et ce désir causa sa mort.*'"

It is not, perhaps, quite clear how the traveller could have hoped to instruct himself by tying a glass bottle to an iron cross; but the point need not be pressed against the poet. The real moral of the event was drawn by the judicious Pictet in the *Bibliothèque Universelle.* "How little merit and glory there is," wrote that philosopher, "in risking one's life in feats of prowess in which the most ordinary rope-dancer will always excel the traveller who thinks to give evidence of his clearness of head, or of his agility in these hazardous *tours de force.*"

APPENDICES.

APPENDIX A.

CHRONICON NOVALICIENSE.—*Cap. V.—De monte Romuleo a quo hoc nomen accepit.*

Ad dexteram namque hujus monasterii partem habetur mons Romuleus. excelsior cunctis montibus sibi adhærentibus. In hoc ergo monte fertur quondam habitasse æstivis temporibus Romulus quidam rex elefantiosissimus. a quo et nomen accepit, propter refrigerium, et amœnitatem loci vel lacus. Hic ergo mons ad dexteram, ut diximus, circumcingit prædictum Cænobium, ad cujus radicem est iter quo vehitur Burgundiam. In eo quippe monte asserit popularis vulgus haberi nonnulla ferarum genera, sicut in Cinisio Monte, ursi, ibices, capreæ, et aliarum ad venationem apta. De quo oritur rivulus descendens per nimiam petrarum ipsarum profunditatem, in quo dicitur fons salitus oriri, mixtimque cum eo currere. Ibices, autem, et capreæ, et oves domesticæ sæpens solent ad eum concurrere, scilicet per crepidinem ipsius alvei, cum in planitiem dimergitur, ob amorem salis, ubi plerumque capiuntur. Dicunt autem quod in isto monte Romuleo enormem quondam congregasset pecuniam prædictus Romuluo, cum in eum maneret, quo nullus qui sponte velit pergere, aliquando ascendere valet. Hic autem senex, qui mihi tanta de eodem loco retulit, insinuavit mihi quod quodam tempore ipse observasset magnam cœli serenitatem, in qua summo surgens mane, cum comite quodam nomine Clemente, ad eundem quantocius festinat scandere montem. Qui cum jam prope essent, cœpit cacumen ejus nubium densitate cooperiri, ac tenebrescere; deinde paulatim crescens, pervenit usque ad ipsos. Ipsi vero inter tenebras nubium positi, manibusque se palpantes, vix per eandem obscuritatem evadere potuerunt. Visum itaque, ut dicebant, erat illis ut desuper lapides mitterentur, nam et aliis nonnullis talia contigisse ferunt. In summitate vero sua ex una parte nil aliud invenitur præter saliuncam. Ex altera namque parte lacum miræ magnitudinis cum prato fertur esse. Idem autem senex solitus erat narrare de quodam cupidissimo marchione, nomine Arduino, qui cum sæpius talia a rusticis audiret, videlicet de thesauro in eo congregato, accensoque animo protinus mandans clericis, ut celeriter secum propere illuc ascendere debeant; qui acceptam crucem, et aquam benedictam, atque vexilla regia letaniasque canentes, ire perrexerunt: qui antequam pervenirent ad apicem montis, æque ut primi cum ignominia sunt reversi. Ergo quia occasio narrandi se intulit, dum circumquaque narratio se extendit, amodo ad ennarrandum opus aptum vertamus stilum.

APPENDIX B.

FROM THE VOYAGES DU SEIGNEUR DE VILLAMONT.

Arrivant à la Novallaise, premier passage du Piedmont, fus arresté pour faire la quarantaine, que j'avois auparavant beaucoup appréhendé, et cherchant les moyens d'en sortir, fus conseillé par le commissaire de la santé d'envoyer a Thurin vers son Altesse (le duc de Savoie), pour obtenir licence de passer, ce que je feis de telle sorte que j'eus permission. Mais, pendant que le messager fut à executer sa charge, plusieurs des habitants me conseillèrent d'aller a Nostre-Dame de Roche-Melon, qui est une petite chapelle bastie sur le haut d'une montagne, portant le mesme nom. Et combien qu'on me dist qu'il estoit difficile à monter, néantmoins, pour contenter mon esprit de chose qui m'estoit si rare et nouvelle, m'acheminai vers ledict lieu, menant deux marons pour me conduire et soulager, ausquels je feis porter des vivres pour deux jours, d'autant qu'ils me disoyent qu'il ne s'y trouvait autres choses que des fromages frais à manger, et que la montaigne duroit bien près de quatres lieues de hauteur, laquelle ayant commencé à monter jusques à une lieue de haut, trouvasmes quelques maisonnettes et des prairies où le bétail paissoit, de la continuans nostre chemin, vismes une fontaine qui sortoit d'un rocher, l'eau de laquelle estoit excellente à boire ; puis, estans parvenus à grand travail jusqu'à deux grandes lieues de haut, me trouvay tant lassé et fatigué, que, n'en pouvant plus, fus contraint de demeurer en une maisonnette où l'on faisait des fromages ; en laquelle m'estant un peu rafraichy, beu et mangé de ce que j'avois faict porter, le sommeil glissant peu à peu en mon cerveau, me contraignant et mes compagnons reposer sur la belle dure, en attendant que l'aube nous ramenait le jour pour poursuyvre le reste de nostre voyage. Les pauvre gens de ladicte maison nous receurent honnestement, nous offrans et présentans à manger de ce qu'ils avoyent, et n'ayant la commodité d'avoir de la chandelle taillèrent par esclats du bois de sapin, lequel, estant illuminé, rendait une clarté semblable à celle d'un flambeau.

Et incontinent au point du jour suivismes la roide montée de ladicte montagne, que trouvasme beaucoup plus difficile q'au commencement, de sorte que je voulois retourner en arrière sans le garçon de la maisonnette où que j'avois couché que j'avois mené avec moy pour me monstrer les choses desquelles il m'avoit tenu propos le soir précédent, qui m'en empescha, me disant qu' à un quart de lieue plus haut me monstreroit les lieux où il prenoit les perdris, et que par adventure en trouverions de prises, ce qui advint comme il avoit prédit, car il s'en trouva cinq, deux desquelles estoyent toutes blanches et les autres blanches et noires ; mais à manger ils ne sont pas si delicates commes les rouges et grises. Il se trouve aussi dans cette montaigne des faisans, et grand nombre de chamois, dont le jour précédent le garçon en avoit tué deux à coup d'arquebuze, la peau desquels il offroit à très bon marché.

Toutes ces choses m'incitèrent à monter plus avant, jusqu' à ce qu' ayant passé trois lieues de hauteur, il fallut attacher aux mains et pieds des graffes de fer pour grimper à mont et aussi de peur de glisser au bas des précipices, qui nous menaçoyent d'une horrible mort.

Ce fut alors que le support des marons me servit beaucoup, sans lequel je n'eusse voulu si téméráirement me hazarder, et m'approchant peu à peu du haut de la montaigne, mesmement de la moyenne region de l'air, incontinent un froid insupportable me vint saisir, de telle sorte que, changeant de couleur, et estant de tout recreu et affaibly, fus constraint me laisser tomber pour prendre un peu de repos, ce que voyans les marons, accoutumez à ce genre de travail, me feirent boire un peu de vin, pour me donner courage de continuer nostre chemin. Finalement, estant soustenus des dits marons, arrivasmes à un quart de lieue près de la pointe de la montaigne, où je croy n'avoir jamais enduré froid plus violent ny passé si périlleux passage ; car il faut alors monter comme par une eschelle, grimpant à mont avec les graffes de fer, que l'on a attachez aux mains et pieds, et faire estat de veoir soubs soy des abismes si profonds et effroyables qu'il ne convient d'attendre fors la mort a ceux qui tant soit peu escoulent ou ne se tiennent fermement a leur graffe de fer. Certainement la chose est beaucoup plus espouvantable et périlleuse que je ne pouvois réciter, ce que je dy aux curieux, comme j'estoy, qui voudront parvenir à la cime de ceste montagne au mois d'aoust seulement, parceq'ués autres mois on n'y peut aller aucunement.

Estant doncques parvenu jusques au sommet, j'entray en la chappelle pour faire ma prière et incontinent après je sortis jetant ma veue sur un grand lac glacé, qui est vers le pays de Grisons ; puis, tournant la teste d'un autre côté, je regardis les coupeaux des montaignes, tant de la Savoye que du Dauphiné, couverts encore de leurs chappeaux blancs, combien que fussions au mois d'aoust.

Et jaçoit que toutes ces montaignes fussent très hautes, néant moins en comparaison de la montaigne où j'estois, elles ressembloyent petites. Puis venant à jetter les yeux sur les terres du pays de Piedmont et de Lombardie, subitement j'oubliay tous les travaux passez et me senty comblé en l'âme d'une joye incredible. Et en ceste joye, désirant de les contempler de plus près, descendy de la montaigne, pour en estre plus-tost jouyssant.

APPENDIX C.

Chronica Fra Salimbene Parmensis ordinis minorum.

Iste Petrus rex Aragoniæ fuit homo magnifici cordis, et fortis armatus, et doctus ad bellum ; nam homo fuit magnæ audaciæ, et multa præsumpsit, ut patet in negotio regni Siciliæ, quod contra regem Carolum et Papam Martinum ausus fuit invadere. Patet etiam hoc ipsum in alio exemplo, isto videlicet quod subjicimus. In confinibus Provinciæ et Hispaniæ mons altissimus eminet, qui ab illis qui partes illas inhabitant mons Canigosus appellatur, quem nos montem Caliginosum possumus appellare. Hic mons navigantibus per mare, cum veniunt, primus apparet ; cum vero recedunt ultima terra est, post quam aliquam videre non possunt. In isto monte nunquam habitavit homo, nec filius hominis super eum ausus fuit ascendere, propter ejus nimiam altitudinem, et propter difficultatem itineris et laboris ; circa radices vero montis istius habitatores existunt. Cum autem Petrus Aragonum super istum montem cogitasset ascendere ; volens exsperiri atque cognoscere quid in montis cacumine haberetur, vocatis duobus miltibus amicis necessariis, quas intime diligebat, exposuit illis quid facere disponebat : qui gavisi sunt, et promiserunt ei quod non solum tenerent secretum, verum etiam quod nunquam separarentur ab eo. Assumptis ergo victualibus et congruentibus armis, dimissis equis ad montis radices, ubi habitatores existunt, cæperunt pedestres paulatim ascendere ; et quum jam multum superium ascendissent, cæperunt audire tonitrua horribilia et terribilia valde ; insuper corruscationes et fulgura apparebant, grandines et tempestates descendebant, ex quibus omnibus pavefacti, cadentes in terram, velut exanimes facti sunt præ timore et exspectatione, quæ supervenerat illis. Petrus vero, qui robustior erat et fortior, et qui desiderium cordis sui complere volebat, confortabat eos ne deficerent in afflictionibus et terroribus illis, dicens quoniam labor iste adhuc a honorem eorum et gloriam redundaret : et dabat eis comedere, et cum eis pariter comedebat ; et post recreationem et fatigationem itineris et laboris, iterum hortabatur eos ut secum valenter ascenderent ; et sic multis vicibus factum est atque dictum. Tandem illi duo socii Petri regis cæperunt dejicere, ita quod, pro nimia lassitudine itineris et tonitruorum timore, vix poterant respirare. Tunc Petrus rogavit eos ut exspectarent eum usque ad vesperum diei sequentis ; et si tunc non rediret ad eos, de monte descenderent, et irent quo vellent. Ascendit igitur Petrus cum magno labore solus ; et cum in cacumine montis fuit, lacum invenit ibidem, in quem cum lapidem projecisset, egressus est ex eo draco horribilis et magnæ magnitudinis, et cæpit per aera volitare, ex cujus flatu obtenebratus et obscuratus est aer. Post hæc Petrus descendit ad socios, et quidquid viderat effecerat totum sociis retulit, exposuit, et narravit ; et descendentibus illis de monte, præcepit eis ut quibus vellent hæc omnia divulgarent, Videtur mihi quod opus Petri Aragonum possit connumerari cum. operibus Alexandri qui in multis terribilibus negotiis et operibus voluit exsperiri ut laudem in posterum mereretur.

APPENDIX D.

FRANCISCI PETRARCÆ DE REBUS FAMILIARIBUS LIBER QUARTUS.

Epistola 1.

Franciscus Petrarca Francisco Dionysio A Burgo sancti Sepulchri, S.P.D.

De suo in Montem Ventosum ascensu.

Altissimum regionis huius montem, quem non immerito Ventosum vocant, hodierno die, sola videndi insignem loci altitudinem cupiditate ductus, ascendi. Multis hoc annis in animo fuerat. Ab infantia enim his in locis, ut nosti, fato res hominum versante, versatus sum. Mons autem hic, late undique conspectus, fere semper in oculis est. Cepit impetus tandem aliquando facere quod quotidie faciebam: præcipue postquam relegenti pridie res romanas apud Livium, forte ille mihi locus occurrerat ubi Philippus Macedonum rex, is qui cum populo romano bellum gessit, Hæmum montem Thessalicum conscendit, e cuius vertice duo maria videri Hadriaticum et Euxinum, fama crediderat, verone an falso, satis comperti nihil habeo: quod et mons a nostro orbe semotus, et scriptorum dissensio dubiam rem facit. Ne cunctos evolvam, Pomponius Mela cosmographus sic esse, nihil hæsitans, refert: Titus Livius falsam famam opinatur. Mihi, si tam prompta montis illius experientia esset, quam huius fuit, diu dubium esse non sinerem. Cæterum, ut, illo omisso, ad hunc montem veniam, excusabile visum est in iuvene privato, quod in rege sene non carpitur. Sed de socio cogitanti (mirum dictu), vix amicorum quisquam omni ex parte idoneus videbatur. Adeo, etiam inter caros, exactissima illa voluntatum omnium morumque concordia rara est. Hic segnior, ille vigilantior; hic tardior, ille celerior; hic moestior, ille lætior; denique hic stultior, prudentior ille quam vellem: huius silentium, illius procacitas ; huius pondus ac pinguedo, illius macies atque imbecilitas terrebat, huius frigida incuriositas, illius ardens occupatio dehortabatur. Quæ, quamquam gravia tolerantum domi ; omnia enim suffert charitas, et nullum pondus recusat amicitia verum hæc eadem fiunt in itinere graviora. Itaque delicatus animus, honestæque delectationis appetens, circumspiciens librabat singula sine ulla quidem amicitiæ læsione. Tacitus quidquid proposito itineri prævidebat molestum fieri posse, damnabat. Quid putas ? Tandem ad domestica vertor auxilia ; germanoque meo unico minori natu, quem probe nosti rem aperio. Nil poterat lætius audire, gratulatus, quod apud me amici simul ac fratris teneat locum. Statuta die, digressi domo, Malancenam venimus ad vesperam ; locus est in radicibus montis versus in boream. Illic unum diem morati, hodie tandem cum singulis famulis montem ascendimus non sine multa difficultate. Est enim prærupta et pæne inacessibilis saxosæ telluris moles. Sed bene a poeta dictum est : *labor omnia vincit improbus.* Dies longa, blandus aer, animorum vigor, corporum robur ac dexteritas, et si qua sunt eiusmodi, euntibus aderant. Sola nobis obstabat natura loci. Pastorem exactæ ætatis inter convexa montis invenimus, qui nos ab ascensu retrahere multis verbis enixus est, dicens, se ante annos quinquaginta eodem iuvenilis ardoris impetu supremum in verticem ascendisse, nihilque inde retulisse præter pœnitentiam et laborem, corpusque et amictum lacerum saxis ac vepribus ; nec unquam aut ante illud tempus aut postea auditum apud eos, quemquam ausum esse similia. Hæc illo vociferante, nobis, ut sunt animi iuvenum monitoribus increduli, crescebat ex prohibitione cupiditas. Itaque senex ubi animadvertit se nequidquam niti, aliquantulum progressus, inter rupes arduum callem digito nobis ostendit, multa monens, multaque iam digressis a tergo ingeminans. Dimisso penes illum si quid vestium aut rei cuiuspiam impedimento esset, soli dumtaxat ascensui accingimur, alacresque conscendimus. Sed (ut fere fit) ingentem conatum velox fatigatio subsequitur. Non procul inde igitur quadam in rupe subsistimus. Inde iterum digressi provehimur sed lentius, et præsertim ego montanum iter gressu iam modestiore carpebam. Et frater compendiaria quidem via per ipsius iuga montis ad altiora tendebat, ego mollior ad ima vergebam: revocantique, et iter rectius designanti, respondebam sperare me alterius lateris faciliorem aditum, nec horrere longiorem viam, per quam planius incederem. Hanc excusationem ignaviæ prætendebam: aliisque iam excelsa tenentibus per valles errabam, cum nihilo mitior aliunde pateret accessus, sed et via cresceret, et inutilis labor ingravesceret. Interea, cum iam tædio confectum perplexi pigeret erroris, penitus alta petere disposui. Cumque opperientem fratrem et longo refectum accubitu, fessus et anxius attigissem, aliquamdiu æquis passibus incessimus. Vix dum collem illum reliqueramus, et ecce prioris anfractus oblitus iterum ad inferiora dejicior, atque iterum peragratis vallibus, dum viarum facilem longitudinem sector, in longam difficultatem incido. Differebam nempe ascendendi molestiam; sed ingenio humano rerum natura non tollitur, nec fieri potest ut corporeum aliquid ad alta descendendo perveniat. Quid multa? Non sine fratris risu hoc indignanti mihi ter aut amplius inter paucas horas contigit. Sic sæpe delusus quadam in valle consedi. Illic a corporeis ad incorporea volucri cogitatione transiliens his aut talibus me ipsum compellabam verbis: quod totiens hodie in ascensu montis huius expertus es, id scito et tibi accidere et multis accedentibus ad beatam vitam: sed idcirco tam facile ab hominibus non perpendi, quod corporis motus in aperto sunt, animorum vero invisibiles et occulti. Equidem vita, quam beatam dicimus, celso loco sita est; arcta (ut aiunt) ad illam ducit via. Multi quoque colles intereminent, et de virtute in virtutem præclaris gradibus ambulandum est. In summo finis est omnium, et viæ terminus, ad quem peregrinatio nostra disponitur. Eo pervenire volunt omnes, sed (ut ait Naso).

Velle parum est; cupias, ut re potiaris, oportet.

Tu certe, nisi ut in multis, in hoc quoque te fallis, non solum vis, sed etiam cupis. Quid ergo te retinet? Nimirum nil aliud, nisi per terrenas et infimas voluptates planior, et, ut prima fronte videtur, expeditior via. Verum tamen, ubi multum erraveris, aut sub pondere male dilati laboris, ad ipsius te beatæ viæ culmen oportet ascendere, aut in convallibus peccatorum tuorum segnem procumbere: et si (quod ominari horreo) ibi te tenebræ et umbra mortis invenerint, æternam noctem in perpetuis cruciatibus agere. Hæc mihi cogitatio incredibile dictu est quantum ad ea quæ restabant et animum et corpus erexerit. Atque utinam vel sic animo peragam iter illud, cui diebus et noctibus suspiro, sicut, superatis tandem difficultatibus, hodiernum iter corporeis pedibus peregi. At nescio an non longe facilius esse debeat, quod per ipsum animum agilem et immortalem, sine ullo locali motu, in ictu trepidantis oculi fieri potest, quam quod successu temporis, per moribundi et caduci corporis obsequium, ac sub gravi membrorum fasce gerendum est. Collis est omnium supremus, quem silvestres *filiolum* vocant, cur ignoro; nisi quod per antiphrasim, ut quædam alia dici suspicor. Videtur enim vere pater omnium vicinorum montium. Illius in vertice planities parva est. Illic demum fessi conquievimus. Et quoniam audisti quænam ascendentis impetus accenderint curæ, audi pater, et reliqua; et unam, precor, horam tuam relegendis unius diei mei actibus tribue. Primum omnium spiritu quodam aeris insolito et spectaculo liberiore permotus, stupenti similis steti. Respicio; nubes erant sub pedibus. Tamque mihi minus incredibiles facti sunt Athos et Olympus, dum quod de illis audieram et legeram in minoris famæ monte conspicio. Dirigo dehinc oculorum radios ad partes Italicas, quo magis inclinat animus. Alpes ipsæ rigentes ac nivosæ, per quas ferus ille quondam hostis romani nominis transivit, aceto (si famæ credimus) saxa perrumpens, iuxta mihi visæ sunt, cum tamen magno distent intervallo. Suspiravi, fateor, ad Italicum aerem animo potius quam oculis apparentem atque inextimabilis me ardor invasit et amicum et patriam revidendi, ita tamen ut interim in utroque nondum virilis affectus mollitiem increparem, quamvis excusatio utrobique non deforet, magnorum testium fulta præsidio. Occupavit inde animum nova cogitatio, atque a locis traduxit ad tempora. Dicebam enim ad me ipsum: Hodie decimus annus completur ex quo, puerilibus studiis dimissis, Bononia excessisti; et o Deus immortalis! o immutabilis sapientia! quot et quantis morum tuorum mutationes hoc medium tempus vidit! Infinita prætereo. Nondum enim in portu sum, ut securus præteritarum meminerim procellarum. Tempus forsan veniet quando, eodem quo gesta sunt ordine, universa percurram, præfatus illud Augustini tui : *Recordari volo transactas fœditates meas, et carnales corruptiones animæ meæ, non quod eas amem, sed ut amem te, Deus meus.* Mihi quidem multum adhuc ambigui molestique negotii superest. Quod amare solebam, iam non amo : mentior : amo ; sed verecundius, sed tristius. Jam tandem verum dixi. Sic est enim : amo, sed quod non amare amem, quod odisse cupiam. Amo tamen, sed invitus, sed moestus et lugens, et in me ipso versiculi illius famosissimi sententiam miser experior :

> Odero si potero ; si non, invitus amabo.

Nondum mihi tertius annus effluxit, ex quo voluntas illa perversa et nequam, quæ me totum habebat, et in aula cordis mei sola sine contradictore regnabat, cœpit aliam habere rebellem, et reluctantem sibi : inter quas iamdudum in campis cogitationum mearum de utriusque hominis imperio laboriossima et anceps etiam nunc pugna conseritur. Sic per exactum decennium cogitatione volvebar. Hinc iam curas meas in anteriora mittebam, et quærebam ex me ipso : si tibi forte contingeret per alia duo lustra volatilem hanc vitam perducere, tantumque pro rata temporis ad virtutem accedere, quantum hoc biennio, per congressum novæ contra veterem voluntatis, ab obstinatione pristina recessisti nonne tunc posses, etsi non certus, et saltem sperans, quadragesimo ætatis anno mortem oppetere, et illud residuum vitæ in senium abeuntis æqua mente negligere ? Hæc atque his similes cogitationes in pectore meo recursabant, pater. De provectu meo gaudebam, imperfectum meum flebam, et mutabilitatem communem humanorum actuum miserebar ; et quem in locum, quam ob causam venissem quodammodo videbar oblitus, donec, omissis curis, quibus alter locus esset oportunior, respicerem, et viderem quæ visurus adeveneram. Instare enim tempus abeundi, quod inclinaret iam sol, et umbra montis excresceret, admonitus, et velut expergefactus, verto me in tergum ad occidentem respiciens. Limes ille Galliarum et Hispaniæ, Pyrenæus vertex, inde cernitur ; nullius quem sciam obicis interventu, sed sola fragilitate mortalis visus. Lugdunensis autem provinciæ montes ad dexteram, ad lævam vero Massilæ fretum, et quod Aquas Mortuas verberat, aliquot dierum spatio distantia præclarissime videbantur. Rhodanus ipse sub oculis nostris erat. Quæ dum mirarer singula, et nunc terrenum aliquid saperem, nunc exemplo corporis animum ad altiora subveherem, visum est mihi Confessionum Augustini librum, charitatis tuæ munus, inspicere, quem et conditoris in memoriam servo, habeoque semper in manibus. Pugillare opusculum perexigui voluminis, sed infinitæ dulcedinis aperio, lecturus quidquid occurreret. Quid enim nisi pium et devotum posset occurrere? Forte autem decimus illius operis liber oblatus est. Frater, expectans per os meum ab Augustino aliquid audire, intentis auribus stabat. Deum testor, ipsumque qui aderat, quod ubi primum defixi oculos scriptum erat. *Et eunt homines admirari alta montium et ingentes fluctus maris, et latissimos lapsus fluminum, et oceani ambitum, et gyros siderum, et relinquunt se ipsos.* Obstupui, fateor, audiendique avidum fratrem rogans ne mihi molestus esset, librum clausi, iratus mihimet quod nunc etiam terrestria mirarer, qui iampridem ab ipsis gentium philosophis discere debuissem, nihil præter animum esse mirable, cui magno nihil est magnum. Tunc vero montem satis vidisse contentus, in me ipsum interiores oculos reflexi, et ex illa hora non fuit qui me loquentem audiret donec ad mai pervenimus. Satis mihi negotii verbum illud attulerat, nec opinari poteram id fortuito contigisse; sed quidquid ibi legeram mihi et non alteri dictum rebar; recolens quod idem de se ipso suspicatus olim esset Augustinus, quando in lectione Codicis Apostolici, ut ipse refert, primum sibi illud occurrit: *Non in comessationibus et ebrietatibus, non incubitibus impudicitiis; non in contentione et æmulatione, sed induite Dominum Jesum Christum, et carnis providentiam ne feceritis in concupiscentiis vestris.* Quod iam ante Antonio acciderat, quando, audito Evangelio ubi scriptum est: *si vis perfectus esse, vade et vende omnia tua quæcumque habes, et da pauperibus, et veni, sequere me, et habebis thesaurum in cœlis*, veluti propter se hæc esset scriptura recitata (ut scriptor rerum eius Athanasius ait), se ad dominicum traxit imperium. Et sicut Antonius, his auditis, aliud non quæsivit, et sicut Augustinus, his lectis, ulterius non processit; sic et mihi in paucis verbis quæ præmisi, totius lectionis terminus fuit, in silentio cogitanti, quanta mortalibus consilii esset inopia; qua nobilissima sui parte neglecta, diffundantur in plurima, et in inanibus spectaculis evanescant, quod intus inveniri poterat quærentes extrinsecus, admirantique nobilitatem animi nostri, nisi sponte degenerans, ab originis suæ primordiis aberasset, et quæ sibi dederat in honorem Deus, ipse in opprobrium convertisset. Quotiens putas illo die rediens et in tergum versus, cacumen montis aspexi, et vix unius cubiti altitudo visa est, præ altitudine contemplationis humanæ; si quis eam non in lutum terrenæ fœditatis immergeret. Illud quoque per singulos passus occurrebat: Si tantum sudoris ac laboris, ut corpus cœlo paululum proximum fieret, subire non piguit quæ crux, qui carcer, quis aculeus deberet terrere animum appropinquantem Deo, turgidumque cacumen insolentiæ et mortalia fata calcantem? Et hoc: Quoto cuique accidet, ut ab hac semita vel durarum metu rerum vel mollium cupidine non divertat? O nimium felix! Si quis usquam est. De illo sensisse arbitror pœtam:

> Felix qui potuit rerum cognoscere causas;
> Atque metus mortis, et inexorabile fatum
> Subiecit pedibus, strepitumque Acherontis avari.

O quanto studio elaborandum esset, non ut altiorem terram, sed ut elatos terrenis impulsibus appetitus sub pedibus haberemus! Hos inter nudos pectoris motus sine sensu scrupulosi tramitis ad illud hospitiolum rusticum, unde ante lucem moveram, profunda nocte remeavi; et luna pernox gratum obsequium præstabat euntibus. Interim ergo dum famulos apparandæ cœnæ studium exercet, solus ego in partem domus abditam perrexi, hæc tibi raptim et ex tempore scripturus, ne, si distulissem, pro varietate locorum mutatis forsan affectibus, scribendi propositum deferveret. Vide itaque, pater amantissime, quam nihil in me oculis tuis occultum velim, qui tibi nedum universam vitam meam, sed cogitatus singulos tam diligenter aperio. Pro quibus ora, quæso, ut tamdiu vagi et instabiles, aliquando subsistant, et inutiliter per multa iactati, ad unum bonum, verum, certum, stabile, se convertant. Vale.

VI. Kal. Maias, Malauceno.

APPENDIX E.

From *Leonardo Da Vinci's Literary Works*, edited by J. P. Richter.

E questo vedrà come vid' io chi ādrà sopra Mōboso, giogo dell' Alpi chi diuidono la Francia dalla Italia, la qual montagnia à la sua basa che parturisce li 4 fiumi che rigā per 4 aspetti contrari tutta l'Europa, e nessuna montagnia à le sue base in simile altezza ; questa si leua in tanta altura quasi passa tutti li nuvoli e rare volte, vi cade neve, ma sol grādine d'istate quando li nvvoli sono nella maggiore altezza, e questa grandine vi se cōserua in modo, chè se nō fusse la retà del caderui e del montarui nvuoli, che non accade 2 volte in vna età, egli ni sarebbe altissima quātità di ghiaccio inalzato dali gradi della grādine, il quale di mezzo luglio vi trouai grossissimo, e vidi l'aria sopra di me tenebrosa e 'l sole che porcotea la mōtagnia essere piv luminoso quiui assai che nelle basse pianure, perchè minor grossezza d'aria s'interpone infra la cima d'esso monte e 'l sole.

APPENDIX F.

Description de ce qui se passa sur la Montagne Eguillefort pendent le sejour de Dompjullien capitaine de Montelimar et de Sou, que M. Lucas m'a donné le 12e Octobre, 1699, Layant pris dans la chambre des comptes de cette province de Dauphiné et quil a traduit en François.

Lettre de Dompjulian (1) *à M. le Président de Grenoble.*

Monsieur le President, je me recommande a vous de bon cœur ; quand je partis du Roy li me chargea faire assayer si on pourroit monter en la montagne qu'on disoit inaccessible, dont par subtils moyens et engins j'ay fait trouver la façon d'y monter, la grace Dieu, et y a trois jours que j'y suis et plus de dix avecque moy, tant gens dèglise, qu'autres gens de bien, avec un eschelleur du Roy, et n'en partirois jusque à ce que j'aye vostre response afin que sy voulez envoyer quelques uns pour nous y voir, que faire le puissiez, vous advisant que trouverez peu d'hommes que, quand il nous verront dessus et quils verront tout le passage que j'ay fait faire, qui y ose venir, car c'est le plus horrible et épouvantable passage que je vis jamais, ni homme de la compagnie ; je le vous fais à sçavoir afin qu'en estant bien acertené a vostre plaisir, le veuillez escrire au Roy par mon laquis porteur de cette, et je vous asseure que vous luy ferez grand plèsir et a moy aussi, et vous deves estre seur si je puis rien pour vous, le feray au plaisir de nostre Seigneur, qui vous doint ce que plus vous dèsirez. Escrit le 28e jour de juin, sur Eguille-fort, dit Mont inaccessible car le peuple du pays l'apelle Leguille, et pour ce que ne le sçaurois oublier, je lay fait nommer au nom du Père, du Fils et du Saint-Esprit, et de Saint Charlemagne, pour l'amour du nom du Roy, et ay fait dire la messe dessus, et mettre trois grands croix aux cartons. Pour vous deviser de la montagne, elle a par dessus une lieüe de longeur, et un trait d'arbaleste de travers, et est couverte d'un beau pré par dessus, et avons treuvé une belle garenne de chamoix qui jamais n'en pourront partir, et des petits avec eux de cette annèe, dont s'en tua un maugré nous à nostre entrée, car jusques à ce que le Roy aye autrement ordonné je n'en veux point laisser prendre ; il y a à monter demy lieüe par eschelle, et une lieüe d'autre chemin et est le plus beau lieu que vistes jamais.

Le tout vostre, DOMPJULIEN.

Le penultième de juin 1492 *furent présentées ces lettres.*

En 1492 et le penultième juin le parlement de Dauphiné ayant reçu les lettres dont on a parlé çy devant, delibera d'envoyer sur le mont Eguille, qui est en Dauphiné, noble Yve Levy, huissier du dit Parlement pour savoir si le contenu desdites lettres etoit véritable, que en revint le cinquième juillet de la même annèe et rapporta au dit Parlement avoir esté dans l'endroit où est situèe ladite montagne, et qu'au bas d'icelle où commence le rocher par où l'on commence à monter, et bien que ce même huissier vit sur ledit mont Eguille Dompjulian capitaine de Montelimar dont on a parlé, et plusieurs autres qui étoient avec luy, il ne voulut cependant pas s'exposer par le danger qu'il y avoit d'y périr et par l'impossibilité d'y arriver de peur quil ne parut tenter le Seigneur puisque à la seule veüe de cette montagne chacun estoit épouvanté ; il y vit néant-moins le même Dompjulian, et les autres qui le prièrent de s'approcher, a quoy l'huissier ne voulut pas condescendre ; il vit sur ladite montagne trois croix que l'on avoit nouvellement fait faire, et il y avoit avec luy plusieurs personnes, dont quelques uns allèrent sur ladite montagne, entre autres noble Guigue de la Tour chastelain de Cleles : pour les autres ils furent tellement épouvantés quand ils virent cette montagne, qu'ils ne voulurent s'en approcher, il ne laissa pas d'y voir plusieurs personnes dessus, qui luy certifierent ce qui suit :—

Nous dessous signez certifions à monsieur l'huissier du Parlement, que aujourd'huy le premier jour moy de juillet, avons monté sur la montaigne qui se disoit estre inaccessible, et maintenant se dit Eguille-fort, sur laquelle montagne rétérons d'avoir trouvé M$^{gr.}$ Dompjulian capitaine de Montelimar, avecque ses serviteurs, le nombre de sept, et avons ouy messe sur ladite montaigne, et aussi trois croix que ledit capitaine a fait faire.

GUIGUES DE LA TOUR, chastelain de Cleles.—F. DE COLAUS.—SILVE.

Je Pierre Liotard, capitaine du lieu des Portes, certiffie estre allé sur le mont Eguille et avoir trouvé dessus Dompjulien capitaine de Montelimar avec cinq ou six de ses serviteurs, parmy lesquels il y avait deux prestres l'un de l'ordre des Frères mineurs et l'autre prestre seculier, qui celebroit sur ladite montagne. Plusieurs montèrent avec moy sçavoir: noble George Juvenis, noble Pierre Blosset, noble Gaspard Robert, noble Gonnet-Bencot Reymond du Collet chapellain, J. Jobert, Pierre Espeil du lieu de Roisar, Claude Chevalier du lieu des Portes.

Ainsy le certifie PIERRE LIOTARD.

En l'annèe 1492 et le 26^{e} juin, au nom du commandement de Charle 8° roy de Dauphiné, sieur Ant'hoine de Ville, seigneur de Dompjullien de Beaupré et capitaine de Montelimar et de Saou, chambelan et conseillier du Roy est allé sur la montagne appellée vulgairement Eguille ou mont inaccessible situé dans le territoire de Dauphiné avec plusieurs de ses serviteurs, savoir: Sebastien de Carect, professeur de théologie et predicateur du Roy, noble Reynaud Jubié eschelleur du Roy, M^{tre} Cathelin Servet, M^{tre} Catin clerc de l'église collegiale de Sante-Croix de Montelimard, maitre Pierre Arnand charpentier du dit Montelimard, Guillaume Sauvage laquais de Dompjulien, Jean Lobié habitant de Die, et je François de Bosco aumonier du dit seigneur qui dis la messe le lendemain, a l'honneur de Dieu, de la Sainte Vierge, et de tout le cœur céleste ou bien heureux, lesquels sus nommés, ont mangé bu et reposé sur ladite montaigne, où étant arrivez ledit seigneur Dompjulien la fit d'abord baptiser en la nommant Eguille ou montagne inaccessible, par maitre Sebastien de Caret, prédicateur du Roy, dont il est parti cy-devant, en disant, *Au nom du Père* *du Fils et du Saint-Esprit Ainsi soit-il*, et a l'honneur de Saint-Charles le Grand dont nostre Roy d'aujourd'huy porte le nom, en chantant le *Te Deum*, le *Salve Regina* et plusieurs autres oraisons, ledit seigneur de Bosco et plusieurs autres étant ses repondants. Cette montagne est couverte d'un beau pré de 40 faucheurs d'homme, et davantage : il y a aussy une fort belle garenne de chamois, qui n'en pouvent jamais sortir, plusieurs moineaux sauvages de trois sortes de couleurs, rouges, noirs, et gris, des corneilles qui ont les pieds rouges, et plusieurs autres oiseaux que nous ne connoissons pas ; on y trouve une fort grande quantité de fleurs de différentes couleurs, dont l'odeur agréable semble estre differente, et sur tout des lis : le pré a de circuit une lieüe par eschelle françoise, un quart de longeur, et de largeur un trait de flèche ou d'arbaleste ; il faut monter demy lieüe par chemin horrible à voir, et encore plus terrible pour descendre, que pour monter. Et enfin, le premier juillet de la meme année, noble Barrachini Silvon voisin de ladite montagne abvec Claude son fils, et messire François son frère curé de Saint-Martin, amenèrent sur ladite montagne audit seigneur des conins, blancs, noirs et gris apprivoisez, qui commencèrent d'abord tous à paistre ; en deux jours ledit seigneur Dompjulien fit faire sur ladite montagne une maison, il fit encore planter sur les trois hauteurs d'Eguille fort, à l'honneur de la Sainte-Trinité, trois croix que l'on voit de tous les environs.

Et nous, François de Bosco aumonier de mon dit seigneur Dompjulien, et maître Catin, bénéficier de l'église collègiale de Sainte-Croix de Montelimard diocèse de Valence, certiffions avoir esté presant pendant que ces choses contenues cy dessus se sont faites, les avoir vu, ouy, avoir mangé, bû et reposé sur la dite montagne comme il est dit cy devant c'est pourquoi j'ay rédigé par ecrit pour le souvenir de la posterité toutes ces choses en présence des susnommez et me suis soussigné de ma propre main le même jour et an.

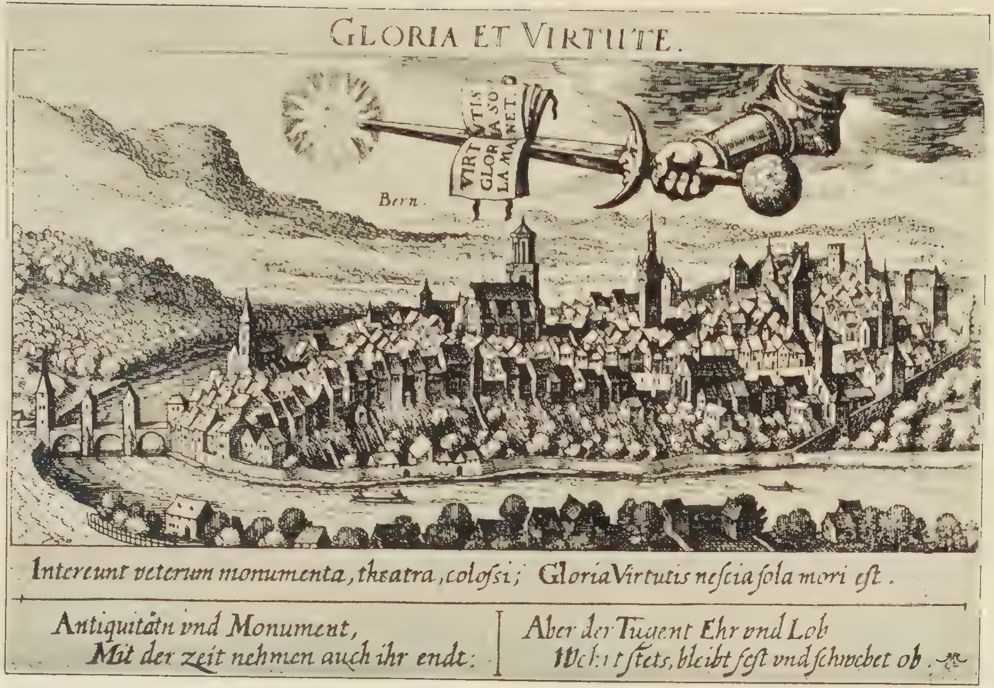
François de Bosco no^{re} apostolique.

APPENDIX G.

Ioanis Rhellicani Stockhornias, Qua Stockhornus Mons Altissimus in Bernensium Helvetiorum Agro Versibus Heroicis Describitur.
Tiguri Apud Gesneros.

Et pio, et docto viro, D Petro Cunzeno, Ecclesiastæ Bernensi, Ioan. Rhellicanus, bonarum literarum apud easdem Professor, salutem et conscientiæ pacem exoptat per Jesum Christum.

Quod serius promissis meis sto, doctissime Cunzene, in nostra montana peregrinatione describenda, non mihi sed Sirio imputandum est. Hoc enim sidus, quamvis æstus et siccitatis causa, singulis annis sit : tamen nescio an ejus vis ullo unquam ætatis meæ anno pestilentior fuerit. Segetes namque, plantas, arbores, herbas, gramina, et holera ante tempus arescere fecit. Nec minore interim vi in omne animantium genus desæviit. Si quidem ex nimia hepatis siccitate sitis : ex siti potus intemperantia : ex ea mille pestes cum in hominibus tum pecudibus ortæ sunt : dysenteria ac reliquæ lues. Quum igitur caput meum etiam per reliqua anni tempora languoribus obnoxium sit : in hoc flagrantissimo Sirii æstu, temperandum mihi ab istius modi meditatione fuit. Ne tamen otio totus marcescerem, nostram, hoc est tuam, Christiani Dannmateri, Thesei nostri fidissimi, et Telori peregrinationem (quam Stockhorniadem a promontorii descriptione appellare lubuit) mane ac vesperi (quando Caniculæ æstus non nihil deferbuerat) meditatus sum. Eam igitur tandem quomodocunque absolutam, nemini potius quam tibi dedicandam censui : quippe omnium nostrum patrono, non in hoc tantum itinere, sed etiam hic. Quo circa, mi Cunzene, Stockhorniadem nostram eo animo suscipias velim quo ego tibi eam nuncupavi : hoc est sincero, candido et tui amantissimo. Tuum ergo nunc


GLORIA ET VIRTUTE.
VIRTUTIS GLORIA SOLA MANET.
Bern.
Intereunt veterum monumenta, theatra, coloſsi; Gloria Virtutis neſcia ſola mori eſt.
Antiquitätn vnd Monument,
Mit der zeit nehmen auch ihr endt:
Aber der Tugent Ehr vnd Lob
Wehrt ſtets, bleibt feſt vnd ſchwebet ob.

OLD VIEW OF BERNE.

[*To face p.* 276.

erit. clientem te deamantem redamare. Vale, Bernæ, 12 Augusti. Anno 1536.

Stockhornias.

Nox erat et cœlo radiabant sidera toto,
Luciferique ortum cantu prædixerat ales:
Pervigil accelerat stratis, simul ocyus omnes
Voce Simon vocat: omnes surgimus ilico lectis.
Induimur, ientamur, corripimus que bacillum
Quisque suum, niveum, vestigia certa tenere
Quo liceat: montem penetrare cacumen in altum.
Dum clivum superassemus, comes unus et alter
Agglomerat sese: quorum unus colle tametsi
Nutritus foret, astrorum tamen ille meatus
Natura didicit duce solo. Namque corusca
Stella Jovis magni mortalibus illa salubris,
Non ignota meat; non est incognita Martis,
Horribilis mundo, rutilans et stella cruenta.
Non comites Solis, Cyllenius, et Venus alma:
Ensifer Orion, qui multos concitat hymbres
Novit Vergilias orientes tempore verno.
Ut stabulum attigimus, placet hic requiescere juxta
Fonticulum et sacco Cererem depromere nostro,
Et capreæ carnes; depromere dulcia vina.
Quis ubi corpora nostra refecta fuere, subinde
Inceptum per iter, scopulos, rupesque per altas
Scandimus: interius dum cornu montis adhæret.
Juxta quod lacus est viridis, non piscibus aptus,
Ima valle situs qui terram more Arethusæ,
Alphei fluvii ingreditur, præruptaqe saxa
Sic penetrat donec spumantes exerit undas
Non procul à pago, cui nomen Rivus et alnus.
Limpidus hic, gelidus, fons vivus valle reducta
Colliculo scaturit, certans cum Blandusiano
Fonte, gelu spectes, vitreum seu forte liquorem.
Hic iterum mensam struimus, lassataque membra
Sternit humo quicunque cupit gustare ferinam,
Qui Cereris donum, veteres qui caseolosque.
Nympha sitim sedat fontis Stockhornia nostram,
Dum pincerna sedet prope fontem pocula præbens.
Vina etenim servare placet Ripensia, donec
Nos Stockhorne tenes conscenso vertice summo.
Postquam exempta fames, et amor cessavit edendi
Pergimus, et varias herbas hinc inde notatas
Cunzius ostendit: quam forman Gentidis herba
Elleborus niveus quam vim medicam gerat, infit.

Innumeras alias herbas monstrabat, et alpes
Quos generant flores : quorum uni fuscus et ater
Est color ; ac odor est moscho frangrantior ipso.
Radicem instar habet palmæ geminæ, hincque vocatur
Christimanus. Nobis mora sic tum fallitur, atque
Scanditur alta crepido dein via lata pedes tres.
Unde iterum in campos, et pascua læta venimus.
Donec per scopulos et saxa minantia tandem
In juga Stockhorni pervenimus ; unde sub ortum
Stagna, lacus, torrentes Simmæ, Arulæ que fluenta,
Oppida spectamus, campos, viridantia prata.
Occiduas sed equos ubi Phœbus mergit in undas
Innumeros montes speculamur, ut æquora lata,
Pavimus utque oculos, stomacho latrante paramus
In medio scopuli mensam ; depromimus armum
Strepsicerotis, tum Cererem, dulcem quoque Bacchum,
Caseolos veteres : qui condimenta fuere
Helvetiis atavis nostris, exotica quando
Nullus averet aromata, bellaque nullus amaret.
Dum prandemus ita, accelerat bumulga juventus
Lactea dona ferens mulctris, tenuesque placentas.
Mensa secunda fuit nobis hæc grata perinde
Attica ceu quondam bellaria grata gulosis.
Namque alius lac potabat, *βοστυρον* edebat
Ast alius : juvat hunc sed pressi copia lactis.
Postquam exempta fames, sitis atque repressa fuisset
Surgitur : atque animi causa devolvere rupem
Avulsum scopulo placet, ac audire sonantem
Non secus ac tonitru, scopulis dum immurmurat altis.
Hæc satis atque super dum nobis acta fuissent,
Omnibus est animus descendere Premnocerote.
Ecce in descensu quiddam mirabile visu
Alpestris gallina statim prætervolat omnes :
Accola saxosam quam gens idcirco vocavit,
Quod saxo gaudet, necnon vescatur arenis,
Magna tecta nive, hæc bombardam dum jaculantes
Intendunt semel ac iterum frustra, tamen istic
Hæsitat immotim, donec confixa lapillo
Bombardæ, scopulo cecidit tum proniter alto.
Lapsa jacens rostro spectabilis illa repando
Ac variis plumis nobis distincta videtur.
Pergimus in stabulum tum nobis forte propinquum,
Atque inibi rursus saturamur lacte bovino
Multiplici : acceptum quod donum jure nepoti
Cunzeni ferimus. Dein cuncti ascendere clivum
(Qui culus ob dominam mutrinus rite vocatur)

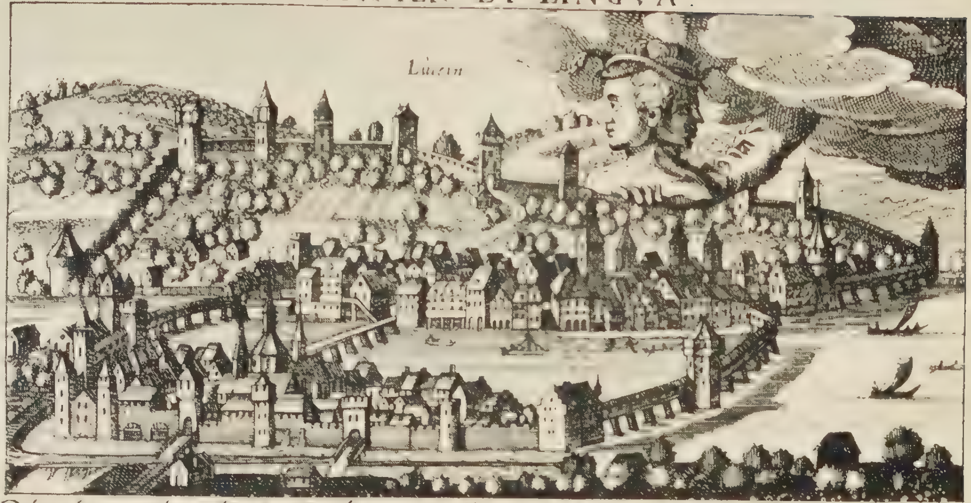
Pergimus: ut liceat currentes strepsicerotas
Cernere ibi propius, de summo vertice montes.
Sed fera nulla fuit nobis conspecta quod illic,
Fortunam culpare libet : venatica namque
Cura, manusque fuit nobis præmissa perita,
Quæ capreas scopulis circum circa latitantes
Exciret, sed nulla fuit conspecta ferarum.
Proinde placet cunctis clivo descendere summo
Paulatim, non lata via est, sed longa crepido.
Commodiore via tandem descendimus inde,
Quam prior ascensus fuerat nam planior ista
Tutior atque fuit multo : gestare solebant
Hàc etenim butyron, et omnia lactea dona.
Attigimus rursum tandem Erlinbacchia prata,
Hospitiumque vetus postquam hic repetivimus omnes :
Corpora curantes, lanataque membra quieti
Paulisper dantes : en magna caterva virorum
Nos vocat ad cænum laute appipareque paratam.
Unicus ad cænam est agilis, præpesque Telorus
Una cum puero venit : quod fessa labore
Corpora fessa forent aliorum, æstuque diurno.
Quæ res perdoluit, non tam quod corpora lassa
Nostra forent quam quod convivis solvere grates
Haud liceat toties quod suscepere benigne.
Nam semel ac iterum magno suscepit honore
Concio magna virum, juvenseque, senesque periti.
Vina etenim donans totius nomine gentis,
Vir venerandus erat : si spectes ora diserta
Nestor erit Pylius : si latifundia spectes
Alter Crœsus erit : Lenberrius atque vocatur.
Signifer ille fuit, dum vires corporis adsunt.
Excipit at Lupus hunc, et lampada sumit ab illo.
Tertius hinc questor, quo non humanior alter
Concelebrans cætum, nos excipit ore benigno.
Hic veteris mores penitus non esse sepultas
Comperimus nostræ Helvetiæ, vestigia multa
Simmæ vallis habet, peregrinos rite fovendo.
His ita transactis, valediximus omnibus : atque
Muneris ipsorum memores nos esse futuras
Donec vita comes, cuncti promisimus, inde
Postera dum Solis luxisset lampas in orbe
Bernam multijugam cuncti remeamus in urbem.

APPENDIX H.

IO. CHRYSOSTOMO HVOBERO MEDICO PRÆCLARO, CONRADUS GESNERUS MEDICUS S. D.

Cum pro veteri consuetudine mea, tum animi, tum valetudinis gratia vel singulo, uel altero quoque anno breuem aliquam peregrinationem, præsertim montanam, suscipere soleam, nuper te quoque charisime HVOBERE *Lucernæ inuisere uolui, vnà cum amicis nostris Petro Figulo Lithotomo, et Petro Boutino Auinionense pharmacopæo, et Ioanne Thoma pictore affine meo, singulis in sua arte peritissimis iuuenibus. Illic tu omnia humanitatis officia in nos contulisti: et ibidem sanè perhonorificè tum à ciuibus nonnullis priuatim, tum publicè etiam copioso vino honorario donato excepti sumus. Postridie à Prætore magnifico viro Nicolao à Meggen equite fortissimo venia (vt moris est) montem Fractum ascendendi impertrata, discessimus. In eo autem itinere quic quid obseruauimus breui hac descriptione complecti, et tibi dedicare statui: vt inde et gratitudinis nostræ qualecunque argumentum tibi exhiberem: ac simul te rogarem, ut si quid in hac descriptione à me vel peccatum uel omissum est, tu emendares et impleres. vtrunque .n. à te præstari facile potest, cum in clarissima ciuitate Lucerna monti quem describo proxima, medici munere fungaris, et multorüm ibi ac potentium quoque virorum amicitijs floreas, et doctrina iudicioque valeas: et montem etiam ipse nuper ascenderis. Quòd si non de hoc solum, sed alijs etiam præsertim Heluetiæ nostræ montibus (quibus illa præ omnibus fermè regionibus abundat) quic quid memorabile in singulis vel ipse videris vel ab hominibus fide dignis acceperis, aliquando ad me perscripseris: addam ego (si vixero) meas quoque obseruationes, vt de montibus eorumque miraculis integer aliquando libellus condatur. In præsentia quidem et si plurimos olim et multò altiores in*

CONSILIO ET LINGVA.



Quisquis consilio et linguæ facili impete pollet, *Is facili prōptos allicit arte greges.*

Wer guten Raht gibt, nach ſeim vleiſs,
Iſt wol beredt, auch klug vnd weiſs:

Dieſer Menſch billich, recht vnd wohl,
Jedermenniglich gefallen ſoll.

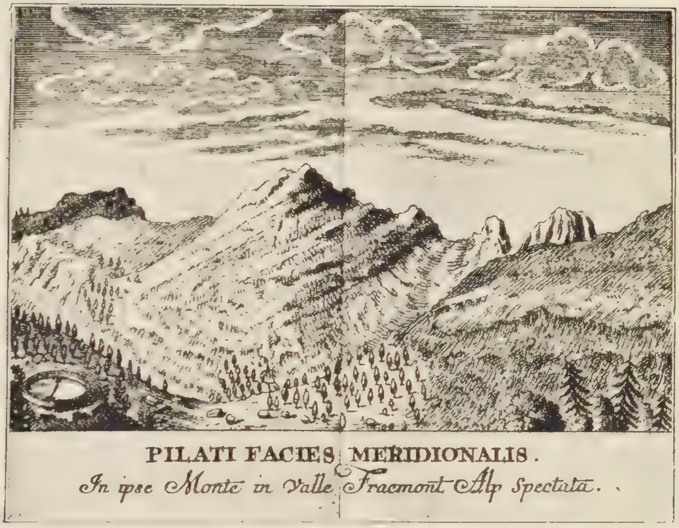
OLD VIEW OF LUCERNE. [*To face p.* 280.

diuersis Heluetiæ locis montes peragrârim, de vestro tantum quem Fractum nominant, propter recentem memoriam seorsim conscribere libuit. Vale. Tiguri quinto cal. Septembris, anno M. D. LV.

Descriptio Montis Fracti Ivxta Lucernam, et Primum Chorographica, præsertim quod ad paludem Pilati in eo memorabilem.

Magni inter Heluetios nominis ciuitas Lucerna est, monasterio præcipuè celebris, cujus conditor fuit V Vighardus quidam presbyter, Ruperti ducis Alemanniæ et Sueuiæfrater, circa annum à nato Domino nostro octingentesimo sextodecimo. Ciuitas enim post monasterium et pariter etiam ratione monasterij condita fertur. Ciues humani et hospitales, et non pauci locupletes sunt. Multa eorum fortitudinis bellicæ testimonia extant. Amœnitas loco præcipua, et simul utilitas piscationis, uecturæ, munitionisque nomine ex lacu et Vrsa fluuio, illic è lacu quem fecerat emergente, accedit. Pontes bini aperti per fluuium, et totidem per lacum tecti, plancis sternuntur; alter per lacum, qui longior est, ad gressus circiter quingentos extenditur. Ab altera parte tuta munitaque ciuitas est alto colle, quem etiam mœnia incingunt. Sed urbis descriptionem alijs relinquo. Initium montis Fracti, quà nos conscendimus, ad sesquihoræ iter abest. (Audio et alia breuiore uia conscendi, sed ea magis accliui.) Inde per syluas, ualles, prata, et cliuos ascenditur. Intra horam ferè ad dextram apparent rudera arcis dirutæ, quam ab Anglo quodam nobili inhabitatam ferunt. Nam per hanc quoque regionem Anglorum exercitus aliquando grassatus est. Inde peruenitur in vallem quam Eijetalam uocant, in qua innumeræ boues pascuntur: et pastorum siue lactariorum hominum, Γλακζοφάγων ἀβίων τε Λικαιοτάτων ἀνθρώπων multæ causæ, stabula et fœnilia spectantur. Incolunt autem hæc loca estiuis tantum mensibus quatuor: si modò æstas illic nominanda est. In verticibus enim altissimorum montium perpetuam hyemem esse dixeris, paulò inferius etiam uernum tempus, circa medium æstatis uel tardius. Flores enim æstate media uel autumno etiam, ijs in locis uidentur, qui in planicie uerni sunt, ut uiolæ, flores bechij et petasitidis. Fructus uerò nullus, nisi forte fragum et uitis Idea. Inferius uerò autumnus quoque suum habet locum, in proferendis quarundam arborum pomis, cerasis potissimum, quæ tamen serò maturescunt, utpote non æstiuo, sed uerno potiùs Sole. In imo iam calidor sol et radiorum reflexus æstatem quoque efficit. Itaque summam huiusmodi montium partem quæ circa cacumen est, hyemalem appellarim, semper illic obtinente hyeme, et niuibus, aut si niues in nonnullis humilioribus aliquando liquescant (ut in eo de quo scribimus monte), frigore et uentis. Alteram, quæ infra cacumen declinat, uernam: quamuis in ea longissima hyems, uer autem breue est. Tertiam autumnalem, quòd præter uer aut hyemem, autumni etiam aliquid habeat. Infimam, æstiuam, ita ut in summo loco pars anni una intelligatur, in declinante duæ, in tertio tres, in infimo quatuor. Nos uicesimo Augusti die pauca quædam cerasa circa medium montis inuenimus: et superius in parte uernali fraga quædam et uitis Idææ, rubique Idæi fructus: quibus aduersus sitim ac famem nos recreauimus. Pernoctauimus autem in fœnili quodam Eijetalæ uallis apud pastorem sané benignum et hospitalem: qui uarijs de lactario opere cibis nos refecit, quanquam uinum quoque non deerat, allatum à publico ministro qui nos ducebat. Nam duce opus erat duplici causa: primum propter religionem incolarum qui ad Pilati paludem neminem admittunt (iuramento etiam ne id faciant quotannis astricti) qui non probum aliquem uirum ex ciuibus secum duxerit, ex quo ueniam conscendendi à Prætore concessam intelligant. Riuus per uallem defluit, in quo licet pertenui et gelidissimo, trutæ tamen optimæ et satis magnæ capiuntur, et hæ quidem solæ in altis locis; inferiùs, ut circa medium, cancri quoque et thymali. In verticibus et iugis saxosis atque præruptis per uarios anfractus, unde monti nomen, rupicapræ stabulantur, et nisi fallor etiam ibices, quos capricornos uulgò uocant, Homerus in Creta αἰτάγρος, et mures alpini; quarum naturas nos in historia quadrupedum descripsimus; et gallinæ quædam montanæ, ut phasiani alpini, et lagopodes siue perdrices candidæ pedibus uillosis nidulantur.

A medio montis et Eijetala ualle ascensus deinceps altior diffi-

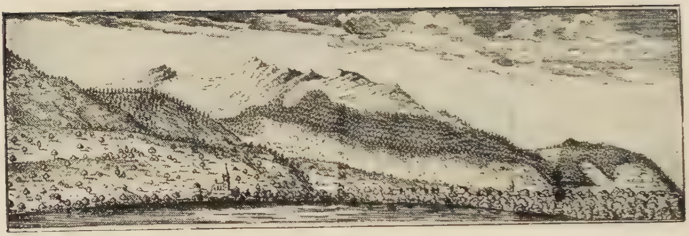

PILATI FACIES MERIDIONALIS.
In ipse Monte in valle Fracmont Alp Spectata.

OLD VIEW OF PILATUS.

[*To face p.* 282.

ciliorque est ad summam usque casam siue sennam, ut ipsorum vocabulo utar. Paulò infra quam fons est ad dexteram in latere cliui, in exiguo terræ cauo abditus, cuius purissima gelidissimaque aqua à lassitudine, siti et æstu, mirificè refecti sumus, cum affatim inde hauriremus, et pane ex eo madente uesceremur, qua uoluptate haud scio an ulla magis grata, magisque Epicurea (quanquam maximè sobria et frugalis) humanis sensibus contingere possit. Epicurum voluptatis patronum legimus, pane et aqua aliquando contentum cœnitasse, nimirum quod ex frugalissimo illo uictu non in præsentia modo simplicem ac naturalem voluptatem, sed postridie etiam sensuum ac cerebri integritatem capitisque levitatem perciperet. Sed cum voluptatis corporeæ qua sensus demulcentur uis, affectionis contrariæ intension iremissioníue respondeat, ut in bilance pas altera tanto evadit altius, quanto magis deprimitur altera, pari utrinque memento : et ubi contraria sensibus molestaque affectio nulla præcedit, ne voluptas quidem sequi ulla potest : frigidæ potum fateri oportet nunquam natura iucundiorem esse, quàm cum siti, æstu et lassitudine maximè incaluimus, id quod montanis in locis et longo ascensu maximè contingit. Itaque cum simul quiescimus à summo labore, simul à maximo calore refrigeramur, simul à siti intensa irrigamur, simul à fame solito maiore pascimur, præsertim animo interim quàm maximè tranquillo et securo, et iucundissima amicorum societate, comitate, colloquijs exhilarato, quis non summam hac in re voluptatem ponat ? Quis enim sensuum hîc sua voluptate non fruitur ? Nam quod ad tactum corpus universum æstu affectum, frigidioris per montes aëris occursu, qui et superficiem corporis undique aspirat, et plenis hauritur faucibus, unicè recreatur iuxta illud Homeri, *Ζωγράδ' ἐπιπνέιων ψυχρὸς βορέαο ἀήτης.* Idem rursus uentos et frigora expertum, Sole, ambulatione, uel igne in casis pastorum calefiet. Visus mirabili montium, iugorum, rupium, syluarum, uallium, riuorum, fontium, pratorum, aspectu insolito delectatur : quod ad colorem uirent et florent pleraque omnia, quod ad eorum quæ uidentur figuras, miræ et raræ sunt scopulorum, rupium, infractuum, aliarumque rerum species, tum figura tum magnitudine altitudineque admirandæ. Si oculorum aciem intendere, uisum dispergere, et longe lateque prospicere et circumspicere omnia libeat, speculæ scopulique non desunt, in quibus capite iam inter nubes uersari tibi uidearis. Si contra colligere visum malis, prata sylvasque virentes aspectabis, aut ingredieris quoque uel ut amplius colligas, ualles opacas, rupes umbrosas, speluncas obscuras inspicies. Est autem cum omnium rerum vicissitudo et varietas, tum uel maximè sensibilium, iucunda. Tanta uerò varietas alibi nusquam, quanta in montibus, intra quidem tam breue spatium reperitur: in quibus ut alia iam non dicam, quatuor anni partes, æstatem, autumnum, uer, hyemem, uno die videre ac ingredi licet. Adde quòd ex summis montium iugis, universum cœli nostri hemisphærium liberè conspectui tuo patebit, et ortus occasusque siderum absque ullo impedimento facilè observabis: et Solem longè tardiùs occidentem, exorientem verò citiùs animadvertes. Auditum, suaves sociorum sermones, ioci, facetiæque oblectabunt: et avicularum in sylvis suauissimi cantus, et ipsum denique solitudinis silentium. Nihil hîc auribus molestum esse potest, nihil importunum, nulli tumultus aut strepitus urbani nullæ hominum rixæ. Hîc in profundo et religioso quodam silentio ex præaltis montium iugis, ipsam ferè cœlestium, si quæ est, orbium harmonium exaudire tibi videberis. Odores etiam suaves ex herbis, floribus ac stirpibus montanis se offerunt: eædem enim plantæ in montibus, tum odoratiores, tum ad medicamenta efficaciores, quàm in plano proveniunt. Aër hic longè liberior et salubrior, nec adeò vaporibus crasis infectus, ut in planitie, nec ut in urbibus et alijs hominum habitationibus contagiosus aut fœtidus: hic naribus ad cerebrum derivatus, arteria ad pulmones et cor, non solum non offendit, sed etiam iuuat.

Gustus oblectamentum eximium iam supra celebraui, frigidæ potum: qui quidem defessos ac sitientes nulla aut multò minore noxa hîc delectabit, quàm in planitie uel domi fieret. Primum enim ipsa aqua in montibus purior et melior est, præsertim circa medium, ni fallor: ubi neque frigida nimis aut nivalis est, et tamen pura et percolata et libero adhuc exposita aëri: Cum circa vertices vel nulla sit, vel prægelida nivalisque nec pura satis, nec percolata, in pedibus verò montium minus frigida est, ideoque minus iucunda: et plerunque in aëre minus libero, ac insalubrior. Deinde frigidissima aqua sæpe minus lædit, quàm minus frigida,



OLD VIEW OF PILATUS.

[*To face p.* 285.

aucto per antiperistasin in ventriculis bibentium calore, præsertim iuniorum, nam cum frigidior his in locis aër superficiem subinde refrigerans, poros nimium aperiri, et calorem internum exhalare ac discuti non sinat, et frigiditas ex potu intrinsecus accedat, interceptum utrinque contrario frigore calorem natiuum intra se magis colligi et augeri dicendum est. Præterea motus et ambulatio mox à potu succedens, ut aqua partim per urinam et sudorem inaniatur, partim calefiat, efficit : neque possit frigida statim ad cor rapi, et calorem eius extinguere, quæ mortis aut gravissimi morbi causa foret. Cor etiam frigido aëre inspirato subinde, minus calet, itaque frigidæ potu minus offenditur. Nam quæ magis calent à frigore citius affici et vinci constat. Sed hoc ita se habere, hoc est frigidam tutius in montibus bibi, etiam copiose, non rationibus tantum nostris credi uolo : sed experientiæ multo magis. Nam et accolæ montis Fracti hoc affirmant : et ego cum multis amicis non hoc solum in monte, sed alijs quoque multis prius sine noxa sæpe sum expertus : cum alioqui phlegmaticus et frigidi ventriculi homo, facile aquæ potu offendar. Aiunt etiam infra illum, cuius mentionem feci fontem, alium esse remedio adversus febrem præcipuè tertianam, nobilem. sed copiose ex illo bibi iubent et ad fastidium usque. Vnde cum vomitus plerunque sequatur, et nimis febrilis calor extinguatur, materiæ simul ac bilis evacuatione, et alteratione, caloris febrim in multis extingui nihil mirum. Verisimile est enim robustiores tantum ad illum fontem adire posse : eosque ante et pòst sudare. Itaque tertiana, quæ alioqui brevis esse solet, facile in illis discutitur, ubi et virtus valida est, et vacuationes illæ accedunt alterationi. Placebunt etiam gustui fructus montani, et suavissima lactaria opera, in montibus longè præstantiora, quæ infra nominabimus. Denique cibus et potus quiuis post huiusmodi labores, palato stomachoque longè gratior fuerit, quàm in otio et quiete. Concludamus itaque tandem, èx montanis ambulationibus quæ cum amicis suscipiuntur, summas omnino voluptates, et iucundissimas omnium sensuum oblectationes percipi, si nullum in aëris constitutione, nullum in animo aut corpore impedimentum sit. Nam homini ægroto aut membris infirmo nihil huiusmodi acceptum esse potest. Sic etiam si animus ægrotet, si curas et passiones non deposuerit, frustra corporis et sensuum voluptates quæruntur. Sed da mihi hominem animo et corpore mediocriter saltem constitutum, et ingenuè educatum, nec nimis deditum otio et luxui aut libidini, vellem et rerum naturæ studiosum ac admiratorem, ut ex contemplatione etiam et admiratione tantorum summi opificis operum, ac tantæ varietatis naturæ in montibus tanquam uno in cumulo se ostendentis, animi voluptas concordi sensuum omnium voluptati accederet : quod quæso aliud intra naturæ quidem limites, honestius, maius et omnibus absolutius numeris oblectamenti genus inuenies ? At ambulatio ipsa et lassitudo laboriosæ molestæque sunt. Est etiam in difficultate locorum et præcipitijs periculum. Ciborum et lectorum deliciæ desunt. Sunto hæc uera : iucundum erit postea meminisse laborum atque periculorum, iuuabit hæc animo revolvere et narrare amicis. Quin et ipsa voluptas ex quiete laborem excipiente tanto futura maior est, et sanitas etiam firmior, in homine, qualem postulo, mediocris saltem constitutionis ; exercentur enim omnes corporis partes ambulantium, et interdum saltantium, tenduntur et laborant nervi et musculi omnes, alij in ascensu, alij in descensu : et aliter in horum utroque, si modò recta, modò obliquè fiat, ut fit in montibus. Sed potest et debet ambulationi mediocritas quædam adhiberi et verum est, quod in problematis scribit Aristoteles, ambulantes per inæqualia loca minus defatigari, quàm per æqualia : hoc est eos qui vicissim ascendunt descendúntque, qualia montium itinera sunt, minus fatigari quàm uel per planitiem diutius, uel sursum deorsúmue tantum iter faciunt. Possunt et rupium aliaque pericula declinari ab illis qui uel uertiginosos se esse, uel alioqui arduis locis superandis parum idoneos se intellexerint. Est aliquid prodisse tenus, si non datur ultra. Quod ad cibos, diximus supra, et dicemus etiam postea, qui qualesque reperiantur in montibus, qui certè etiam delicatis hominibus satisfacient, præsertim cum uno aut altero tantum die consuetis sit abstinendum : et lactaria illa opera quanquam insueta, ambulantes tamen plerosque propter exercitium nihil lædant : ita ut homines gulæ studiosi uel hoc tantum nomine montes aliquando adire deberent, ut frigidam bibere, lacte et uarijs ex eo cibis delicijsque frui sine stomachi et valetudinis noxa liceret, quod plerisque domi non licet, etiam si hæc æquè lauta in promptu essent. Si tamen omnino cibus alius requireretur, facile per ministros deferri potest.

Sed lectus, culcitra, plumæ, pulvini desunt. O mollem et effœminatum hominem, omnium instar tibi fœnum erit : molle est, odoratum, ex uarijs herbis ac floribus saluberrimis congestum : longè suavior et salubrior inde nocturna tibi respiratio fuerit. Hoc pro pulvino capiti, pro culcitra tibi toti substernes : et pro stragulo etiam insternes.

Sed ad institutam montis chorographiam redeo. In suprema casa vaccaria, postquam delicatissimo pinguissimoque lacte refecti sumus, et litum alpinum inflauimus (longum ferè ad pedes undecim, duobus lignis modicè incurvis et excavatis compactum, et uiminibus scitè obligatum) inde lævorsum deflexímus duce bumolgo illius casæ : et mox tripodes, id est baculis nixi, quos alpinos cognominant, et mucrone ferreo præpilare solent, nulla uia per cliuum sanè arduum longo itinere conscendimus, interdum etiam cespitibus apprehensis reptauimus : et inter saxa rupesque magno labore tandem ad cacumen evasimus, è quo tum alia longè lateque spectabantur, tum regio Lucernensibus subdita Entlebocha nomine ad occasum. In cacumine specula è rupe eminet, in qua Pilatum olim consedisse et diras concitasse tempestates credunt. In ea literæ quædem uisebantur, nomina eorum qui adierant, et annus Domini, et quædam signa gentilia siue familiarum. Inde in planitiem dextrorsum descendimus, ubi reperimus aream quadratam, hexaclinon ferè, eminentibus circunquaque marginibus, gramine virentem, sed locus medius sesquipedis ferè spatio quoquouersus, nudus et sine herba erat, terra in eo aperta, nec unquam innasci quicquam aiunt ; in eo stetisse incantatorem ex illis quos vulgò scholasticos peregrinantes auorum memoria nominauit, druidarum reliquias, (ut in Mithridate polyglotto ostendi,) dum Pilatum ex illa (quam dixi) specula coniurationibus suis depulsum in proximam deturbaret paludem. Ab hoc loco ad sinistram rursus profecti per cliuum descendimus aliquandiu donec tandem ad lacum aut verius paludem Pilati peruenimus : in planitie uallis exiguæ sitam, dodecaclinon fortassis, in qua Pilatum immersum aiunt : et in alia proxima minore uxorem eius.

Locus circa palustris est. Si quicquam ab homine de industria injiciatur, toti regioni ex tempestatibus et inundatione periculum esse aiunt: quæ incolarum persuasio, cum nullam secundum naturam rationem aut causam habeat, nullam apud me fidem meretur. Quanquam sæpenumero ad superstitiones ac falsas persuasiones euentus et miracula sequantur, non id circo tamen simpliciter et à bonis uiris habenda illis est fides. Ego Pilatum his in locis nunquam fuisse crediderim: et si fuisset, nullam ei à morte concessam in homines bene aut male faciendi potestatem. Quòd si quis dicat multa huiusmodi perpetranda diuinitus concedi genijs malis, et Pilatum etiam talis genij naturam induisse: respondeo non dicendam esse potestatem si quid mali à malis perficiatur genijs: sed Dominum Deum permittere ut impiorum aut superstitiosorum fides ita decepta confirmataque suæ impietatis aut superstitionis pœnas luat. Impium enim est ullius in mundo euentus aut mutationis causam in alium reijcere authorem quàm Deum. Hæc quidem sententia nostra est, qua si quis uir bonus et pius meliorem me docuerit, audiam libenter. Negant hanc paludem aut crescere aut minui unquam: idque mirantur, cum undique collibus cingatur à quibus liquescentes defluunt niues. Sed terra circunquaque palustris, et meatuum plena est, ut facile quicquid defluit absorbeatur, antequam ingrediatur plaudem. Profunditatem nesciunt: quod eam experiri, aut paludem quoquo modo attingere eis nefas sit. Ego in altissimo quodam Sabaudiæ monte, in regione Bodiontiorum retro Clausam oppidum, similem lacum vidisse memini, sed nullius religionis: rotundum ferè, perexiguum, sed tantæ profunditatis ut montem totum penetrare crederetur; aiebant enim incidisse aliquem bouem, cuius caput et cornua post aliquod tempus in fonte quodam ad pedem montis iuxta oppidum Clusam inuenta fuerint. Eusebius historiæ ecclesiasticæ, libro 2, cap. 7, et alij quidam historici, Pilatum tradunt tempore Caij Caligulæ, annis circiter quadraginta post natiuitatem Domini, è Judæa euocatum Romam, cum à Caligula sibi anxiè timeret mortem sibi consciuisse, (propria manu se transuerberasse, cum sub Claudio accusatus à Caio Lugdunum in exilium missus esset, Io. Nauclerus): quo uerò in loco id fecerit, non exprimunt. Alij eum Roma in exilium ablegatum aiunt, et paulò pòst in Rhodano apud Viennam Galliæ urbem submersum: atque eo in loco naues, etiamnunc periclitari, testantibus accolis, ut meminit Otho Frisingensis lib. 3, cap. 13. Quod si ab area illa incantatoris, quam dixi, rectà ferè per montis ueluti spinam progressi essemus Lucernam et Septentrionem uersus, intra horæ spatium peruenissemus ad locum in monte quem *Biderfeld* nominant: ubi, ni fallor, planicies quædam est: et in eodem spelunca quædam reperitur vulgò dicta *das Ranloch* (uel potius *das Roonloch*) id est Spelunca viri uel Lunæ: cuius aditum instar portæ alicuius aiunt esse angustum, interiora patere, et mediocrem lucem admitti, semitam esse qua quis uel ultra centum ulnas siue orgyias progredi possit: tandem perueniri ad aquam: et si quis pergeret, in fine speluncæ ianuam ferream inueniendam aliqui nugantur: mihi enim uerisimile quod ad ianuam non fit, cætera facile credo, quod et ex alijs audierim, et ex sene bumolgo uiro bono, qui se ultra centum orgyias progressum in eo specu dicebat, et inde ex fornice attulisse quod Lac Lunæ appellant, de quo infra pluribus scribam. Ab eo loco meridiem uersus ad Subsyluanos descensum, sed difficilem, esse aiunt. Sed nos à palude Pilati, quum et dies iam declinaret, et pluuiæ uespertinæ signa apparuissent, ut tempestivè Lucernam rediremus, per collem sinistrum ascendimus, et rursus per uiam satis commodam, quam etiem boues ingredi solent, descendimus, qua quidem prius etiam nobis licuisset multò commodius breuiusque ad Pilati paludem peruenire atque ita sub noctem in urbem reversi sumus, in monte aliquandiu propter ingruentem pluuiam morati.

In Cyrenaica provincia (inquit Pomponius Mela libro 1. de orbis situ) rupes quædam est Austro sacra: hæc cum hominum manu attingitur, ille immodicus exurgit, arenasque quasi maria agens sic sæuit, ut æquor fluctibus. Idem testatur Plinuis lib. 2. cap. 47.

In Halesina regione fontem aliâs quietum et tranquillum quum siletur, si personent tibiæ exultabundum ad cantum eleuari, et quasi miretur dulcedinem uocis ultra margines intumescere, Dionysius Afer uel Rhemnius eius interpres tradit. Huius quidem benignior genius est, et si quem intellectum natura habet, multò magis ei adscribendus quam qui Pilatinam Stygem incolit.

Ex COMMENTARIS IOACHIMI
Vadiani in Pomponij Melæ locum iam citatum.

Miror (inquit) Gellium lib.16. hoc inter fabulosa æstimare potuisse, cum historica fide nihil dissimile Strabo prodiderit : et multis de locis C. Plini' author cum primis grauis, paria memoret. uelut libri 2. cap. 47. de Dalmatiæ specu quem deiecto leui pondere, quamuis tranquillo die, turbini similis emicet procella. quod et apud nos (*Helvetios*) in proximis alpibus Abbatis cellæ (ita pagus Helvetiorum vocatur) ingenti et altissimè demisso specu fieri obseruauimus. Verùm talium fortasse causam verisimilem quis retulerit ? Maiora alibi mirabilioraque extant : quorum haud aliud causæ possit afferre mortalium quispiam, quam diffusæ (ut Plinij uerbis utar) per omnia naturæ subinde aliter atque aliter numen erumpens. Iam in Helvetia prope Lucernam veterem et percelebrem urbem, mons est præaltus, quem ob fragosam asperitatem, et præcipitem altitudinem, etiamnum vernacula lingua Fractum cognominant, alienæ linguæ durante vestigio Fracmónt. Infra cuius æditissimum verticem lacus est, Pilati cognomento, angustus admodum, et palus veriùs quàm lacus. in quem de industria iniecta maximas tempestates ciere, et omnia undis opplere aiunt : quæ verò casu incidant, nihil irritare eum, tanquam planè humano sensu culpa carêre, quod casu fit, intelligat. Capit res fidem, quòd pacatum irritare ausos, mox fuisse capite plexos ob illatam accolis calamitatem, oppidani referunt. Ego anno superiore cum mense Augusto Lucernam uenissem lacus uisendi gratia, humanissime exceptus, et in ipsum postridie montem eductus sum à doctissimo et verè ingenuis moribus prædito Ioanne Xylotecto canonico Lucernate, comitantibus nos Osualdo Myconis erudito, et pleno ingenui candoris homine, et Conrado Grebelio Tigurino Grebeliæ meæ fratre spectatissimæ indolis adolescente. Ac prima quidem luce oppidum egressi, in mediam ferè montis altitudinem, equis difficili sanè nec admodum trita uia uehebamur. mox equitandi ampliùs cum copia non esset, iumentis in proxima pascua dimissis, et conducto qui nos anteiret pastore, baculis nixi, reliquum altitudinis pedites arctissima semita, quaque non cuiuis iter fuerit, per ingentes hinc et inde rupium anfractus scandendo exuperauimus. Demumque non sine sudore ad paludis marginem peruentum est. Mons ipse cætera ferè præceps, eo in loco pascuus est, et ingenti sese ambitu in speciem orbis inclinans ualle profunda residet : ipso in meditullio lacum sustinet, tenui tantum iunco vestitum, et horrida iuxtà clausum sylva : quòdque solum adeunti religionem incutiat, alto undique silentio septum. Nullis in eum riuus influit, nullus exit. aqua nigricans, phlegethontæa, et plusquàm palustris immota iacet. nec uenti facile torpentem excierint. Austro enim et Zephyro reliqua montis pars altissimè assurgens latè obducitur. Ab Euro et Aquilone loci profunditas, et quam dixi densa sylva tuetur. Mirum autem hybernis eum niuibus non crescere, nec rursum æstiuis contrahi caloribus, deside aqua perpetuo (ut ferunt) tenore suos sese intra limites continente. Illud retulerim, nos in ascensu, à pastore illo qui ducebat tantùm non iurisiurandi sacramento adactos fuisse, ne quid importunius tentaremus uiso lacu, aut ne quid injiceremus. Capitis ille sui aleam ludi aiebat, iterum iterumque modestiam, atque etiam silentium tanquàm ad sacra perduceret, expostulans. Qua re, ut ueteri loci famæ quicquam tribuerem, non parum, fateor, commotus fui. Quanquam fabulosum esse constat, quod de Pilato quidam somniarunt, cerni eum quotannis in lacu (die veneris ante Pascha proximo) videlicet iudicis habitu, nec annum superuiuere posse qui uiderint, magna uanitate. Hæc enim mortalium levitas est, locis naturæ numine aliquo insignibus fabularum præstigias adnectant : et interim natura nescio quomodo comparatum, ut non difficile credant, qui audiunt, religionis ui quadam ad hoc ipsum nos alliciente, et inhanc etiam credulitatem rerum novarum adeunte cupiditate. Porrò verum sit necne, quod de memorato lacus ingenio constans accolarum fama circunfert, ne nunc quidem dixerim, cum experiri mihi non licuerit : ac ne si licuisset quidem, id facere sine magno discrimine potuissem. Sed pleraque tamen omnia ut recipiam, multorum experientia et authoritate deprehensa, confirmataque naturæ miracula omnibus propè in partibus eius insignia mouent : ut interim non referam, eum mihi loci genium uisum esse, qui in loco præsertim tam ædito, haud difficile natæ de se famæ respondere possit. Adeò enim excelsus mons est, ut à prima luce ad lacum uidendum, mox ad summum montis verticem egressi, et citra moram longo descensu ad equos reversi, occiduo iam Sole cum noctis principio urbem ingressi fuerimus, duabus plurimùm horis ad cibum medio in monte capiendum insumptis.

Hucusque Vadianus, quem ego miror dubitasse et inclinasse in eam sententiam animo, quasi naturalis aliqua causa subsit, unde uel minima quavis re iniecta tempestates et imbres horrendi ab ipso mox lacu excitentur. Quanquam enim et ipse intelligo multarum in natura rerum rationes nos latere, quas interim esse naturales nemo diffiteatur: sapientes tamen uiri in plerisque omnibus etsi de causis dubitent, neque certas aut proximas adferre ullas possint, (ut cur magnes ferrum attrahat,) simpliciter saltem an secundum naturam eveniant, asserere possunt. Certè natura quid casu, quid studio fiat, non discernit: nec aliter stipulæ siue casu inciderit ignis, siue de industria fuerit iniectus, exardescent. Benigna et benefica est natura, et in ijs quæ ad rerum generationem ac salutem pertinent, quanquam ratione careat, tam commodè, tam scitè omnia facit, tanquam summa ratione prædita foret. idque meritò. n. ipsa principium eorum quæ præstat intra sese habet, sed influente superiore ac divina virtute, quæ ratio rationum est, agit quæ agit: et tanquam instrumentum artificis manu regitur: ut qui naturæ opera ceu ipsius propria miratur, non minus sit ineptus, quàm qui pulcherrimorum ædificiorum et machinarum laudes securi, serræ, et dolabræ attribuerit. Quod si etiam discernere posset natura, quid casu, quid industria fieret, non ideò foret malefica: aut si de illis à quibus foret contempta se uellet ulcisci, non etiam in alios innocentes circum quaque magis quam bellua sæuiret. Solent. n. plerunque belluæ, ut ursi et leones, in illos solùm uel maximè uel ante alios sæuire, à quibus læsæ fuerint. Non igitur hæc maleficia adscribemus naturæ, quæ ad malos genios et homines maleficos et dæmonum pollutos commercio pertinent. Multæ sunt aliæ in alijs montibus similes paludes, quædam etiam maiores et profundiores: circa quas tale nihil contingit: quod fieri deberet si secundum naturam contingeret. Multa sepe inijciuntur, etiam impura, in puras et saluberrimas aquas, in rapidos et limpidisimos fluuios, in maximos et piscasos lacus, in quibus longè maior naturæ maiestas splendet. Sed nemo hoc naturæ contemptum interpretatur, nulla inde vindicta. In parva ergo, inutili, immobili, nigra et Stygia palude natura contemnetur? E tantilla aqua inundationes subitò erumpent? nubes (ut quidam putant) et imbres statim è terra ascendent? non descendent è sublimi? Atqui natura subitò et sine præcedentibus signis nihil facit, neque ex minimis statim maxima producit. Non igitur natura est si quid in illo maleficum est: sed dæmon aliquis, siue Pilatum siue alio nomine illum appelles. Plena sunt autem dæmonibus omnia, qui per incredulitatem et superstitionem multa ubique mala excitant, maximè uerò in solitarijs et nescio quam religionem præ se ferentibus locis, suam uim suasque præstigias ostentare solent. Quòd si quis uerè pio et fidente animo se illis opponat, soli diuinæ gratiæ et auxilio nixus, et neque diuinitus neque secundum naturam fieri quæ ab eis fiunt constanter sibi persuaserit, et fortiter eum contempserit: ille proculdubio tum corpore fortunisque illæsus, tum animo tranquillus permanebit. Contra si quis à gratia et luce diuina quæ universum illustrat mundum aversus, in speluncas et tenebras abierit, multa illic horrenda et malefica spectra, et uanos innoxiosque pijs (qui unicam cœlestem lucem, et Christum iustitiæ Solem adorant) varios huiusmodi panicos terrores inueniet. Hæc hactenus, non contra Vadianum, virum doctrina et pietate clarum, quem postea hanc dubitationem deposuisse, et rem totam ceu prorsus superstitiosam agnouisse, ab hominibus fide dignis accepi. Hoc etiam mihi constat ante annos non ita multos, virum bonum et eruditum, in plaudem illam baculum iniecisse, et Pilatum verbis nominatim contempsisse, neque tempestatem ingruisse ullam. Quòd autem non rarò loca montibus subiecta, præsertim altioribus, et è quibus torrentes defluunt diluuia sua experiantur, causa in promptu et naturalis est. nam et pluuijs aquis et niuibus liquatis torrentes augentur: et interdum (quod rariùs fit, et vulgo admirationem parit maiorem) ex amplissimis latentibus et hypogeis cavernis, uel tempore uel alia ui, locis luxatis, concussis, perfractis, aquæ in eis collectæ, siue stagnantes, siue aliò diffluere solitæ, erumpunt, inque proximi torrentis alueum se exonerant. Et cum è monte Pilati quoque torrens civitatem versus rapido impetu feratur, quid mirum si loca illa siue manifesta ex causa, siue latente interdum (ut dixi) inundent? Nullum nos Tiguri dæmonem aut Pilatum causamur, torrente et erumpente Sila nostra: nullum Basilienses, cum civitatem infestat suo tumore Byrsa: nullum aliorum locorum, quorum innumera idem patiuntur, incolæ.

Jacobus de Voragine Episcopus Genuensis, ordinis fratrum prædicatorum, qui circa annum Domini ducentesimum nonagesimum à millesimo, Lombardicæ historiæ de vitis et historijs sanctorum author, in titulo de passione Christi ex libro quodam apocrypho de Pilato sic scribit: Tiberius Cæsar Pilato iratus propter Jesum ab eo condemnatum et crucifixum, cum Romam perduci iussisset, carceri eum inclusit, donec deliberaret quid de eo fieri oporteret. Data est in Pilatum sententia ut morte turpissima damnaretur. Audiens hæc Pilatus, cultello proprio se necauit. Cognita autem Cæsar morte Pilati, dixit: Verè mortuus est morte turpissima, cui manus propria non pepercit. Mole igitur ingenti alligatur, et in Tiberim fluuium immergitur. Spiritus uerò maligni et sordidi, corpori maligno et sordido congaudentes, et nunc in aquis, nunc in aëre rapientes, mirabiles inundationes in aquis mouebant: et fulgura, tempestates, tonitrua et grandines in aëre terribiliter generabant: ita ut cuncti terrore horribili tenerentur. Qua propter Romani eum à Tiberis fluuio extrahentes, derisionis causa Viennam deportauerunt, et Rhodano fluuio immerserunt. Sed ibi quoque nequam spiritus non defuerunt, ibidem eadem operantes. Homines ergo illi tantam infestationem dæmonum non ferentes, uas illud maledictionis à se remouerunt, et illud sepeliendum Losannæ civitatis territorio commiserunt. qui (cuius incolæ) cum nimis prædictis infestationibus grauarentur, ipsum à se remouerunt, et in quodam puteo montibus circumsepto immerserunt: ubi adhuc relatione quorundam quædam diabolicæ machinationes ebullire uidentur. Hæc ille. Non est autem dubium de nostro Pilati monte eum sentire, qui etiamsi ad Lausanensem episcopatum non pertineat ea parte qua palus continetur, illi tamen uicinus est, et meridiem versus veteres episcopatus illius terminos ingreditur.

APPENDIX I.

De Itinervm Alpinorvm difficultatibus et quomodo hæc superari possint.

Quæ sint frequentia itinera per Alpes hactenus exposui, deinceps quæ difficultates et pericula eos maneant, qui per Alpes iter faciunt, et quomodo superari possint ordine exponam. Sunt autem itinera alpina difficilia et periculosa, uel propter uiarum angustias, ac præcipitia, uel propter glaciem, uel propter niues, aut denique ob frigora et uentos tempestatesque sæuas. Primum enim in altissimis montibus itinera omnibus feré in locis natura aspera et angusta, nonnunquam étiam in rupibus hominum labore et opera excisa sunt, adeo tamen angusta ut uix sarcinarijs iumentis pateant, ac nonnullis locis duos pedes latitudine parum superent : sæpe etiam ubi uia deest, ruptæ rupes iniecta trabe quasi ponte iunguntur, aut nudarorum rupium latera suppositis tibicinibus intersectisque longurijs muniuntur, et cespitibus ac uirgultorum fascibus pensiles uiæ sternuntur. Sæpe etiam ubi nullæ rupes iter coarctant, nihil ominus angustæ sunt uiæ in profundissimis niuibus, in quibus hominum opere semita facta tutum incessum præbet, sed à latere niues molles et profundæ nón patiuntur uiatores ex illa egredi. Plerumque ante prospectus ex his locis in profundissimas ualles subiectas, magnum horrorem transeuntibus incutit, adeò ut multi uertiginis metu ab incolis, qui itineribus huiusmodi assueti sunt, ma un ducantur, quandoque etiam equis illorum, qui tutissimè aspera hæc et angusta loca superare possunt, se deportari curent. Atque hæ uiarum angustiæ efficiunt, ut quauis nullæ Alpes insuperabiles sint, non tamen omnibus itineribus exercitus duci possit proper impedimentorum, et tormentorum difficilem uecturam. Et quia sæpe in montibus ubi alioqui æquiora itinera sunt, uiarúm perlongæ angustiæ occurrunt, diligenter cauent ne iter facientes se in his angustijs lædat, præsertim ne illis damnum detur, qui boum armenta aut equorum greges agunt, solent enim quotannis ex transalpinis regionibus, et præsertim Heluetijs et Germania multi boues et equi in Italiam abduci. Neque leue periculum est ne tenore aliquo incusso turbati greges in præceps ruant et pereant. Itaque qui per Alpes iter faciunt, et præsertim qui sarcinaria iumenta, aut armenta agunt, utrinque constituta habent tempora, quibus iter ingrediuntur, ut sibi inuicem in summis uerticibus ubi aliqua planicies est, occurrant : quod si forte aliter accidat, certas leges habent, quosnam in uia subsistere, aut alteri de uia decedere oporteat.

Augent autem uiarum difficultatem præcipitia et derupta loca, præsertim si glacie tecta sint itinera, quare uarijs rationibus sibi consulunt uiatores, et pastores, ac uenatores qui frequenter per altissimos montes uagantur. Nam aduersus lubricitatem glaciei soleas ferreas, equorum soleis similes, tribus acutis cuspidibus præditas, firmiter pedibus alligare solent, ut uestigia in glacie firmare possint : alij corrigias, quibus calcaria astringuntur sub imo pede similiter præacuto ferro muniunt, aliaque adhibent, quæ lubricitati obsistere et gressum firmare possunt. Nonnullis in locis baculis utuntur mucroni ferreo præpilatis, quibus nixi per arduos cliuos ascendere solent, hos alpinos baculos uocant, et pastoribus præcipuè in usu sunt. Aliquando etiam pastores et uenatores per loca decliuia et penè præcipitia, qua nulla alioqui est, cæsis ramis arborum, et præcipuè abietum, insidentes, et quasi inequitantes se demittuntes. Vbi autem currus onusti per loca huiusmodi ardua demittendi sunt, nonnunquam ingentibus funibus ergatarum et trochlearum artificio eos demittunt. Atque antiquis hoc in usu fuisse Ammianus Marcel indicat, cuius uerba superius in Alpium Cottiarum descriptione apposuimus. Simile quiddam refert Schaffnaburgensis, qui commemorans, quanto labore Henricus IIII. Alpes hyeme superasse soribit, Reginàm et mulieres ex enis gij necæo boum corijs impositas fuisse, quas itineris duces deorsum trahebant, equos quoque per machinas summissos, aut colligatis pedibus tractos, ex quibus multi mortui aut debilitati perièrint.

Accliuia autem loca plurima in eodem monte se offerunt, etsi enim eminus continuus ascensus uidetur, ita ut superato ingo, per quod iter est, te ad summum montem peruenturum indices, tamenco superato, planus aliquis locus se offert, et supra hunc alius nouus mons superandus occurrit, quæ res magnam molestiam horum locorum imperitis affert. Plerunque enim sibi persuadent montes non tam altos atque arduos esse, nam ex propinquo eos contemplantes indicant longe humiliores, quàm reuera unt : ubi igitur ad remperuentum fuerit uident se opinione sua deceptos esse, ac sibi laborem crescere dolent. Obseruauit hoc Silius atque eleganter affectum hunc ascendentium Alpes carmine expressit :—

Quoque magis subire iugo atque euadere nis
Erexere gradum, crescit labor, ardua supra
Sese aperit fessis, et nascitur altera moles :
Vnde nece domitos exudatosque labores
Respexisse libet, tanta formidine plena
Exterrent repetita oculis, atque una pruinæ
Canentis, quacunque datur permittere uisus
Ingentur facies, medio sic nauita ponto
Cum dulces liquit terras, et inania nullos
Inueniunt ventos, securo carbasa malo
Immensas prospectat aquas, ac nicta profundis
Æquoribus, sessus renouat fua lumina cœlo.

Glacies autem in Alpibus non tantum lubricitate sua uias difficiliores reddit, sed alia quoque maiora pericula affert. Imminent nonnullis locis immensæ rupes, quæ nonnunquam ita uijs impendent, ut ruinam minari uideantur, et his qui his non assueti sunt magnum terrorem incutiunt : sed raro ab his periculum cuiquam creatur, fæpius à glacie, quæ exaltis rupibus in uias subiectas nonnunquam cadit, easque tegit et intercipit, magno cum uitæ discrimine eorum qui tum per illa loca iter faciunt. Memininit huius rei Strabo, his uerbis : Glaciales crustæ supernæ et quidem lubricæ illabentes universam occupant semitam, et in subiacentes extrudunt ualles. Frequens enim super glaciem glacies incumbit, ingruentibus maxime niuibus, antequam in superficie omnino solibus disoluantur. Præter illa uetus glacies per quam nonnunquam iter faciendum est, profundos hiatus trium aut quatuor pedum latitudine, et sæpe etiam ampliores habet, in quos si quis decidat, indubitató illi pereundum est. Accidet autem ut niuibus recentibus, aut uento conglomeratis illi hiatus tegantur, itaque qui tum per Alpes iter faciunt, peritos locorum qui ipsis præeant conducere solent: his se fune cingunt, cui etiam aliquot ex his qui sequuntur se astringunt, qui uerò præit longa pertica uiam explorat, et diligenter in niuibus hiatus hos scrutatur, quod si forte imprudens in aliquem deciderit, à socijs qui eodem fune cincti sunt, sustinetur et extrahitur. Vbi nullæ niues foueas tegunt, minus est periculi, saltu tamen illos superare oportet, nulli enim hic sunt pontes: nisi quod nonnunquam hi qui sarcinaria iumenta per hæc loca agunt (id autem rarius fit) asseres ligneos secum ferunt, quibus iumentis ponticulum sternunt quá transeant.

Niues uerò in Alpibus multis locis tam sunt altæ, ut hominibus et iumentis pereundum sit, si in illis submergantur, atque non leuius periculum est, quàm si in aquis mergantur. Ideoque Claudianus scribit:—

> Multos haufere profundæ
> Vasta mole niues, cumque ipsis sæpe iuuencis
> Naufraga candenti merguntur plaustra barathro.

Quapropter ut iter facientes sibi cauere possint, incolæ prælongos stipites, quos stilos ligneos uocat Marcellinus, erigere solent, ut hos sequantur uiatores. Sed hoc negligentius plerunque ab illis fit, quo imperiti uiarum ipsorum operam conducere cogantur. Cæterum ut aliquis transitus pateat, proximi montium accolæ magistratuum edicto uiam per montes munire coguntur, magno labore neque absque periculo. Igitur singulis ferè diebus ex proximis uicis utrinque ad montem, aliqui uias explorant, et siquid peniculosum deprehenderint, iter facientes mouent, uiasque muniunt. Ac multis in locis cum primum nouæ niues aliquæ ceciderint, boues aliquot qua iter erat per nouas niues agunt, hi non tantum pedibus, sed cruribus et toto pectore niues frangunt, deinde etiam trabem aliquam ad complanandam uiam trahunt, et creduntur uias melius nosse, et his complanandis atque parandis longè aptiores esse equis. Quod si hac ratione uia non bene patefacta fuerit, plures ad hoc opus conducti palis et batillis alijsque instrumentis niues amouere et uiam aperire solent. Atque mercatores cum incommodæ tempestates inciderint, sæpe magno pretio pluribus operis conductis uias purgant, quo merces suas transmittere possint. Porrò qui profundas niues perambulare uolunt, illis locis ubi nullæ uiæ sunt, hac ratione sibi à submersione cauent: asses ligneos paruos et tenues, uel circulos ligneos cuiusmodi in dolijs uinarijs uinciendis adhibentur, pedalis diametri funibus cancellatim undique contextos, pedibus alligant. Atque hac ratione cum maius uestigium faciant, non submerguntur, atque non alte in niues incidunt. Apud Xenophontem legimus quiddam simile, cum enim Græci per Armeniorum montes niuosa uia iter facerent, ab incolis edocti sacculis equorum et iumentorum pedes obligarunt, quod aliqui nudis pedibus ingredientes usque ad uentrem in ipsas niues descenderent.

Maximum omnium periculum est à decidentibus conglomeratis niuibus, quas nostri LOUVVINEN, Rhetti Labinas uocant, haud dubie à labendo, unde et Germanicum nomen alterius uocis deprauatione factum est. Hæ commouentur leui de causa, si enim in monte summo arboribus nudo et accliui nix commota fuerit, uel à præteruolante auicula, uel ab aliquo animali alio, aut étiam à uento uehementiore, aut prætereuntium hominum clamore, quando scilicet ipsa repercussione uocis, qua Echo uocant, aer impulsus niues etiam mouet. His inquam uel leuissimis commotionibus nix impulsa in globum initio conuoluitur is ubi multis prouolutionibus excreuerit et iam propter magnitudinem et inæqualitatem uolui amplius non potest, uehementiore tum impetu delabitur, et continuo progressu auctior uires maioremque molem acquirens, saxa, arbores, ibices et alia quæuis animalia, homines, tuguria, et quicquid obuiam fuerit, inuoluit, et pectum abripiens, ad imos montium pedes defert. Huiusmodi niuium moles sæpe complura iugera occupat, tantóque cum fragore à montibus decidit, ut terra ipsa concuti uideatur, et procul inde distantes atque huius rei ignari, tonitru se audire existiment. Cadunt autem huiusmodi Labinæ non omnibus in locis et temporibus, sed tantum in decliui monte, qua solum arboribus nudum est, et plerunque eò potissimum tempore, quo uel uerno calore niues liquescunt et emolliuntur, uel ubi autumno et hyeme magnæ niues super ueterem conglaciatam et lubricam niuem repente decidunt, cœloque sereno frigus sæuit. Duo autem tradunt genera esse Labinarum, unum ubi nouæ et molles duntaxat niues conglobantur et labuntur : alterum quod inueteratam niuem quoque trahit, et multum terræ secum abripit : hoc priori et maius est et plus damni dat. Atque superioribus annis in Rhetis apud Rinooaldios, qui fontem Rheni accolunt, minime è nonte ruentium moles syluam et proceras abietes deiecit et inuoluit. Accidit etiam Heluetio milite per Alpes iter faciente, ut LX homines et etiam plures eadem niuis conglobatione opprimerentur. Nonnunquam tamen homines niue conglobata inuoluti, sub ipsis niuibus uiuunt, et opera incolarum eruuntur, et quasi ab inferis reuocantur. Id autem accidit ferè tum ubi tantum recentes niues conglobatæ fuerunt, et ualles qua impetum sistunt aliquem inuoluerint : etenim si is qui niue obrutus est, manus sub niue non prorsus indurata mouere. et aliquid spacij circa faciem excauare possit, aliquam sub niuibus respirandi facultatem nanciscitur. atque in alterum et tertium etiam diem sub niuibus uiuere potest. Montium uero accolæ siquando huiusmodo moles decidat, mox obseruant an aliqui eo die iter ingressi sint, et temporis ratione subducta an niuibus inuoluti sint conijciunt. atque confestim harum rerum periti niues fodiunt et scrutantur num aliquis lateat, cui adhuc opem ferre et uitam conseruare possint. Considunt autem atque subsistunt labentes niuium moles in locis planis et uallibus, atque illic aliquando uiam montanis torrentibus in eos incidentes præcludunt, quæ si hominum opera non fuerit rursus aperta, illi in se collecti et aucti nonnumquam non paruo incolarum damno erumpunt. Quo autem loco casus niuium ex monte metuendus est, illic nullæ sunt domus, nulla tuguria aut boum stabula in subiecta ualle, sed incolæ proximi aliquo loco, ubi collis forte interpositus niuium casum coercet, edificare et habitare solent. Atque apud Visarios in montis Gothardi radicibus, ingens sylua procerissimarum abietum, ab ipsa natura molibus niuium opposita uidetur, cum alioqui nullæ aliæ arbores aut syluæ illic in ea parte montis creuerint : triangulari autem forma consita est, ut quamuis niues arbores deijcere soleant, hic tamen non sit periculum ne subuertatur, cum angulo opposito quasi perfringere conetur incidentem molem. et sua magnitudine, qua subinde latior et densior est, defendat. Itinera autem propter uallium angustiam nonnunquam, quoniam aliter fieri non potest, per loca huic periculo obnoxia transeunt: qua re ut discrimen uitare possint, qui illac iter faciunt, plerunque summo mane, quando minus periculi est, uiam ingrediuntur, et taciti quam celer rime possunt periculosa loca prætereunt. Accolæ etiam qui optime naturam locorum tenent, et quando periculum immineat certis signis conjicere possunt, peregrinos quid faciendum illis sit admonent. Cum autem in ipsum iter ingens aliquis globus niuis deciderit, uix multo tempore soluitur: et per illum iter faciendum est, quasi per nouum quendam monticulum, aut collem nuper in uia ortum. De his autem Labinis seu niuium cadentium mole, Silius scribere uidetur, his uersibus:—

> Tum qua durati concreto frigore collis
> Lubrica frustratur canenti semita cliuo,
> Luctantem ferro glaciem premit, haurit hiatu
> Nix resoluta viros, altoque à culmine præceps
> Viuentes turmas operit delapsa ruina.

Apté autem et proprie inducit Annibalem per loce accliuia et conglaciata iter facientem, ubi multa nix fuerit, et ea quidem mollis et liquescens, in quam ingressi milites mergebantur, et hiatu quodam hauriebantur, et illic cadentem ex alto niuem integras turmas operuisse sua ruina. Nam tandem in summis et accliuibus montibus, et præsertim cum super glaciѐm magnæ niues ceciderint, et molles fuerint, et liquescere cæperint, conglomeratæ niues decidunt. Ac forte etiam Claudiani uersus huc referri possunt, in quibus tamen non niues, sed glaciem nominat:—

> Interdum subitam glacie labente ruinam
> Mons dedit et trepidis fundamina subruit astris.

Præterea, inter alia mala frigus ingens his qui per Alpes iter faciunt, molestum est, præsertim flante Borea, quare sæpe multorum artus ui frigoris amburuntur, atque alijs aures aut nares nonnullis manuum aut pedum digiti, atque etiam ipsi pedes ui frigoris obstupescunt et pereunt: multi oculos ex perpetuo niuium usu amittunt. Aduersus hæc mala uaria præsidia sunt: oculis quidem ut uel aliquid nigri prætendatur, uel uitrea conspicilia quæ uocant: reliquis membris, ut pellibus crassisque uestimentis bene contra frigus muniantur: ac charta scriptoria et membrana pectus optime à uentis frigidis defendunt : quod si pedes obstupuerint, noctu exutis calceis gelidæ aquæ immerguntur, et paulatim tepida affunditur, ita enim restitui creduntur. Maxime tamen omnium motus assiduus prodest : accidit enim nonnunquam ut in ascendendo monte, homines ob laborem incalescant, et nullum frigus se sentire existiment, quod si quiescendi gratia in niuibus sederint, mox illis somnus obripit, atque tum absque ullo fere sensu doloris dormientes obstupescunt et moriuntur: unde Claudianus in Alpium Rheticarum descriptione :—

Multi ceu Gorgone visa
Obriguere gelu. . . .

Cur autem motus unicum aduersus lætiferum frigus existat, Xenophon eleganter exponit, cuius uerba subijciam : Quin si torpentem aliquem et desidentem offendissem, quique se ultró hostibus præ inertia dediturus uideretur, illum ego pulsabam, seque erigere et progredi iubebam. Ex meipso enim intelligebam, in magna hyemis accerbitate desidendo tanto inertiora et pigriora corpora reddi : qui si forte paululum commoratus essem, ut fit, eos qui sarcinas colligerent, expectans, sentiebam crura præ frigore obtorpescere. Meo itaque periculo doctus, ubi se quem pigritiæ dedentem, ac quasi frigore stupentem uidissem illum ego commouebam, quod intelligerem motu, et uirili quadam corporis exercitatione recalescere membra, et humorem euocari : contrà uero efficere quietem et tarditatem, ut sanguis quasi gelu concretus intabescat, atque ex eo, quod ipsi multis accidisse scitis, pedum digiti obrigescant. Nostri igitur eodem modo sibi à frigore cauent, non à Xenophonte, sed longo usu edocti.

Postremo ueró omnia hæc pericula tempestatibus augentur, non enim in mari tantum, sed in altissimis quoque montibus magnæ et periculosæ tempestates existunt. Nam in Alpibus uenti quidem semper et frigidi et uehementes sunt, nonnunquam tamen præter solitum sæuiunt, et prorsus uiolenti sunt : ac tum niuibus, cadentibus, aut pluuia, aut grandine non licet iter facere, quoniam non tantum hæc molesta sunt et difficilia ad perferendum, sed simul conspectum et usum uiarum adimunt, idemque accidit si ueteres niues à uento conglomerentur, et quandoque homines suffocant, ità in Alpibus niues ab ijsdem graui hominum periculo accumulantur.

Quin etiam per uias præcipites et angustas, nequaquam tutum est uento uehementius perflante, iter facere, ne quis uiolentia uenti in præcipitium aliquod impellatur. Itaque nonnunquam si subito tempestas gravis incidat summa Alpe uiatores ad biduum aut triduum subsistere coguntur, donec tempestate cessante, itinera rursus ab his qui ualles incolunt patefiant, et muniantur. Sunt autem in singulis feré Alpibus, per quas mercatores frequenter transeunt hospitia aliqua, sed talia, qualia loci natura patitur, et illic fieri possunt, ubi omnem materiam sarcinarijs iumentis subuehere oportet. Porro tempestates montanæ non ignotæ fuerunt Silio à quo his uersibus describuntur :—

Interdum aduerso glomeratus turbine Corus
In media ora niues fuscis agit horridus alis.
Aut rursum immani stridens auulsa procella
Audacis rapit arma viri voluensque per orbem
Contorto rotat in nubes sublimia flatu.

Cæterum non absque ratione Corum inter uentos potissimum nominat, quem Græci Argestem uocant, hic enim unus est ex frigidissimis uentis, et grandines importat : atque idem esse uidetur, qui in Narbonensi prouincia Circius nominatur, nulli uentorum uiolentia inferior, ut Plinius refert, ita ut tecta auferat. Cato quoque de Alpinis Hispanis scribens, uerba hæc posuit : Ventus Cercius cum loquare, buccam implet : Armatum hominem, plaustrum oneratum percellit. Ventorum uiolentiæ in summis montibus, exemplum apud Xenophontem exat, qui lib. 5. Rerum Græcarum de Cleombroto scribit. Digredienti quoque uehementissimus incidit uentus, quem Aliqui futura angurari suspicabant, multa enim damna exercitui intulit : nam ex Crasio per montem mari imminentem ducenti, iumenta quam plura impedimentis onusta in mare præcipitata sunt, arma quoque militibus erepta, ac ui uenti in mare deiecta sunt. Multi quoque cum arma ferre amplius non possent, in montium summitatibus lapidibus degrauata relinquere coacti sunt.

APPENDIX J.

A MADAME . . . .

Bizarre Peinture de quelques Montagnes de Savoye.

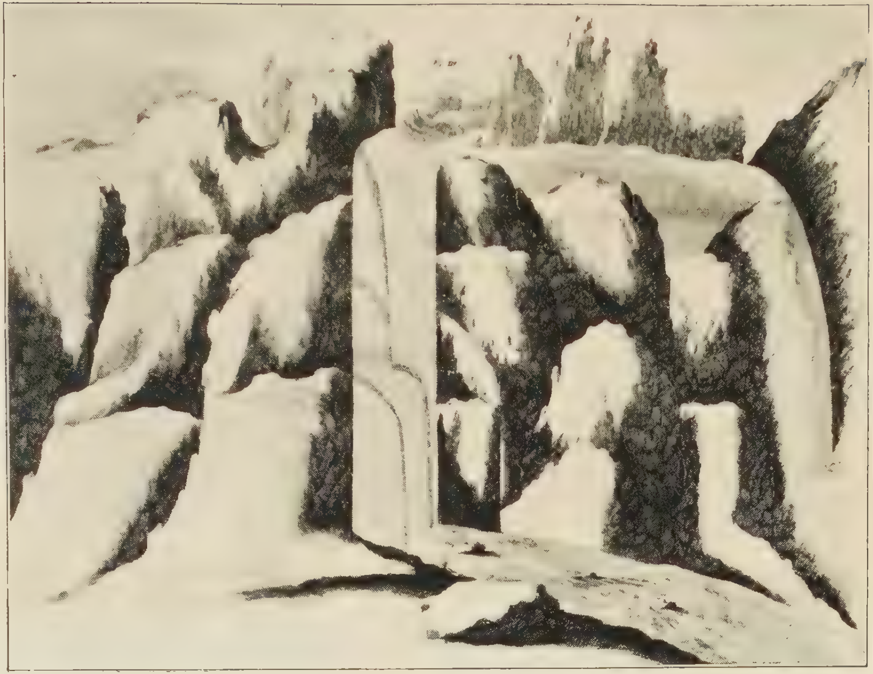
LETTRE II.

DE CHAMONY EN FOSSIGNY,
le 16 *May*, 1669.

J'avoüe, Madame, que je n'ay point fait ce que je vous avois promis, quoyque j'aye trouvé de tres-belles occasions de vous tenir parole. Dans le desespoir où vous m'aviez mis en vous quitant, j'avois juré de me precipiter dans le premier lieu commode. Cependant depuis quinze jours j'ay monté et descendu les plus dangereuses montagnes de Savoye ; j'ay passé sur les bords de mille precipices, et jusqu'icy je ne me suis point precipité. Je vous dirois bien que mes affaires m'en ont ôté la memoire : mais il ne faut pas vous tromper. Le plaisir de voir vostre Portrait en ce Pays affreux m'a toûjours retenu quand j'ay pensé à m'acquiter de ma promesse. Je ne sçaurois me resoudre à mourir en des lieux, où je puis voir quand je veux vostre agreable Image.

Vous serez sans doute fort en peine à déviner quel est le Portrait dont je vous parle ; vous irez abord foüiller vostre cassette pour voir si je vous ay dérobé celuy que vous m'avez refusé tant de fois. Mais sçachez que je ne dois point ce plaisir à la peinture ; la Nature elle mesme en est l'Ouvriere. Enfin, Madame, je voy icy cinq montagnes qui vous ressemblent, comme si c'estoit vous même.

Oh ! n'en riez point tant. Ce sont des Tableaux qui vous representent mieux que la Judith et la Pallas que vous avez dans vostre cabinet. Cinq montagnes, Madame, qui sont de glace toute pure depuis la teste jusqu'aux pieds ; mais d'une glace qu'on peut



OLD VIEW OF GLACIERS.

[*To face p.* 304.

appeller perpetuelle. On sçait icy par tradition qu'elle est glace depuis la creation du Monde. Les feux de cinq à six mille Canicules, ny les eaux du Deluge universel n'ont pas eû la force de la fondre, si ce n'est en quelques endroits, où l'on trouve souvent du cristal et des pierres precieuses. Mais pour dire vray, il est dangereux de les y chercher. Les curieux et les avares y sont souvent accablez en Esté sous la ruine des neiges qui s'éboulent. On m'en a montré quelques-uns qui sont morts enchassez dans les glaces, et leurs parens pour leur consolation disent que l'Art ne pouvoit pas leur faire un Tombeau si pompeux et si brillant que celuy qu'ils ont reçu de la Nature. Au reste, Madame, rien n'est si magnifique que ces montagnes, quand elles reçoivent les rayons du Soleil ; les faces differentes que la Nature bizarre a données à leurs glaces, rendent les lumieres de ce bel Astre en tant de façons, qu'il semble qu'on y voit un million de soleils de couleurs differentes.

Après cela peut-on trouver de vous des Portraits plus veritables ? Cette glace perpetuelle qui vous environne, ces bijoux que trouvéroient chez vous ceux qui pourroient la faire fondre, ce peril où s'exposent les Temeraires qui l'entreprennent, la mort de tant de gens qui ont osé l'entreprendre, et enfin ces soleils qu'on voit en vos yeux, ne sont-ce pas des rapports si justes avec les montagnes de glace, que je les puis regarder toutes comme des Portraits de vous très-achevez ? La Nature a fait cinq fois en vostre faveur, ce qu'un Sculpteur fameux voulut faire une fois pour Alexandre. Vous estes icy peinte sur cinq montagnes, et c'est pour vous une gloire incomparablement plus grande que si Appelles ou Praxiteles revenoient au monde, pour vous peindre sur le cuivre ou vous tailler sur le marbre.

Enfin, Madame, ce sont des Portraits qui vous representent si vivement, que pour me vanger de la cruauté que vous avez euë de me refuser si souvent le vostre, j'ay envie de pendre une de ces montagnes à mon col en guise de medaille, ou, si je n'y puis reussir, j'ay envie de me pendre moy mesme à la montagne, afin de mourir colé sur vostre Portrait. Mais pourtant s'il faut mourir de froid, il vaut encore mieux que ma mort ſoit causée par la glace de vostre coeur, que par celle des montagnes. De sorte, Madame, que je suis résolu de me tirer le plutost que je pourray de ce Païs affreux, pour m'en aller mourir à vos pieds. C'est là que je pretens vous tenir parole ; aussi bien ma mort ne satisferoit pas pleinement vôtre cruauté, si vos yeux n'avoient la joye d'en estre les témoins.

APPENDIX K.

Il medico Giordani al suo amico Michele Cusa.

Dai ghiacciai del monte Rosa,
il 23 *luglio*, 1801.

E dall' alto delle Alpi che vi scrivo : sorpasso il livello della cima di tutte le più alte montagne, eccettuato il monte Rosa, le di cui sommità sono ancora più elevate di alcune centinaia di tese. Un inclinato granito, di cui avanza fuori della neve appena quanto basta per mettervi il foglio, mi serve di tavolino per distendere questi scarabocchi, un pezzo quadrilungo di ceruleo ghiaccio mi serve di sedile.

Al nord ho le elevate e bianche cime del Rosa ; al nordovest vedo tutta la catena delle grandi Alpi sino al monte Bianco, che vedo sorpassarle maestosamente ; di là vedo tutta la catena delle Alpi Graie, Cozie e Marittime, sino gli Appennini nella Liguria ; al nord-est tutte le innumerevoli catene di montagne che suddividono l' Elvezia, il San Gottardo, le Alpi Rezie e fin le montagne del Tirolo. Entro questo circolo contemplo la Cisalpina, tutto il Piemonte, e le città e i borghi innumerevoli che ora biancheggiano dai riflessi raggi del sole, il quale è gia motto inclinato, essendo quasi le 4 pomeridiane. Figuratevi, amico, quale spettacolo ! incomprensibile senza vederlo ! La corona delle montagne sulla quale io mi trovo è fiancheggiata altoriente ed all' occidente da ghiacciai sorprendenti ; in parte quasi piani, in parte di un declivio ripidissimo, ed in parte intersecati da spaventevoli e profonde screpolature. A sinistra superiormente alla mia stazione scorre sugli scogli un limpidissimo ruscelletto che esce dal piede di un enorme ammasso di ghiacci, aventi una fronte perpendicolare alta più di 26 piedi, screpolata verticalmente e di un colore ceruleo, e dopo avere scorso lo spazio di circa 30 tese sugli scogli traversati orizzontalmente da un erto filone di rosso-quarzo, si precipita e perde nel sottoposto ghiacciaio.

E inesprimible il mio rincrescimento nel vedermi in questo santuario della natura privo degli opportuni istrumenti per le misure delle altezze e per le molteplici esperienze di fisica che qui avrei la rara occasione di fare. Poco sotto alla mia stazione trovai ancora alcuni vegetabili, come il *ranuncolo glaciale*, che qui è di un abito tutto peloso; la *saxifraga biflora* e la *purpurea*, la *diapensia elevelica*, il *senecio unifloro* di Allioni ed alcuni licheni. Del resto sembra che io passeggi sulla tomba della natura vivente.

Non veggo ostacolo veramente insuperabile per ascendere questa a me più vicina cima del Rosa; è unicamente l'ora tarda del giorno che mi costringe a ritornare sui miei passi, e mi inquieta il solo pensare in simile ora allo spazio che mi separa dalla più vicina abitazione; il piacere però di contemplare e di studiare la natura e grandissimo. Io sono soddisfatto ad usura delle mie fatiche, e per quel che ho veduto, e per la consolazione di avere scoperta una strada per salire sul gran colosso del monte Rosa, per cui i fisici in avvenire lo potranno studiare e contemplare a loro bell' agio, ed interrogarvi la gelosa natura sui suoi segreti, specialmente in meteorologia.

Ho profittato del lento processo di alcune esperienze sull'acido carbonico, che qui instituisco, per distendere questi mal connessi scarabocchi; ma abbiate riguardo al tempo, alla situazione ed al vento che mi incomoda motto nello scrivere. Il termometro sta in questo momento a gradi $4\frac{7}{8}$ sopra lo zero; ho la respirazione molto affannosa per la rarezza dell' aria, ed il mio polso batte 110 volte in un minuto.

Chiudo questa mia per intascare i miei pochi istrumenti e sollecitare la mia discesa da queste solitarie spiaggie.

Amatemi e mi dico
alle ore 4 pomeridiane
Salute ed amicizia,

GIORDANI.

APPENDIX L.

Mémoires de J. A. de Thou.

Ce seigneur, savant dans la géométrie et dans les mécaniques, avait chez lui des laboratoires, des ateliers et des forges, avec tous les instrumens nécessaires pour fondre ou pour fabriquer toutes sortes de machines. Il invita les commissaires à dîner : le repas fut assaisonné d'une savante conversation, suivant sa coutume. De Thou tourna l'entretien sur ce que les Pyrénées pouvaient avoir de hauteur : il savait que c'étoit faire plaisir à son hôte que de le mettre sur ce chapitre.

M. de Candale leur raconta qu'il avait été aux eaux de Béarn, proche de Pau, à la suite de Henri d'Albret, roi de Navarre, père de la princesse Jeanne, dont il étoit proche parent : que dans le séjour qu'il y fit, il résolut de monter au sommet de la plus haute montagne, qui n'en est pas eloignée, et qu'on nomme les Jumelles, à cause qu'elle se sépare par le haut en forme de fourche ; que dans le temps qu'il preparoit tout ce qu'il crut nécessaire pour son dessein, plusieurs gentilshommes et d'autres jeunes gens, vêtus de simples camisoles pour être moins embarrassés, s'offrirent de l'accompagner ; qu'il les avertit que plus ils monteroient, plus il sentiroient de froid, ce qu'il n'écoutèrent qu'en riant ; que pour lui il se fit porter une robe fourrée par des paysans qui connoissoient les lieux ; que vers le milieu du mois de mai, sur les quatre heurs du matin, ils montèrent assez haut pour voir les nuées au-dessous d'eux ; qu'alors le froid saisit ces gens qui s'etoient si fort pressés, de manière qu'ils ne purent passer outre ; que pour lui il prit sa robe et marcha avec precaution, accompagné de ceux qui eurent le courage de le suivre ; qu'il monta jusqu'à un endroit où il trouva des retraites de chèvres et de boucs sauvages qu'il vit courir par troupes sur ces roches escarpées ; qu'ayant été plus loin, il remarqua quantité d'aires d'aigles et d'autres oiseaux de proie ; que jusque là ils avoient rencontré des traces taillées dans le roc par ceux qui y avoient auparavant monté ; mais qu'alors on ne voyait plus de chemin, et que, pour regagner le sommet, il en restoit encore autant à faire qu'on en avoit fait ; que l'air froid et subtil qui l'envirronnoit leur causoit des étourdissemens qui les faisoient tomber en faiblesse, ce qui les obligea de se reposer et de prendre de la nourriture ; qu'après s'être enveloppé la tête, il se fit une nouvelle route avec l'aide des paysans qu'il avoit amenés ; que, quand le roc resistoit au travail, on se servoit d'échelles, de crocs et de grappins ; que par ce moyen il arriva enfin jusqu'à un lieu où il ne virent plus aucune trace de bête sauvage, ni aucun oiseau, qu'on voyoit voler plus bas ; que cependant on n'étoit pas encore au sommet de la montagne ; qu'enfin il le gagna, à peu de distance près avec l'aide de certain crochets qu'il avait fait faire d'une manière extraordinaire.

Qu'alors il choisit un lieu commode d'où il pût regarder sûrement jusqu'en bas ; qu'il s'y assit, et qu'avec le quart de cercle il commença à prendre la hauteur ; qu'il prit pour rez-de-chaussée le courant paisible que les eaux qui se précipitent de rocher en rocher avoient formé ; que jusqu'au plus haut de la montagne, qu'il mésuroit aisément du lieu où il étoit, il trouva onze cents brasses ou toises de notre mesure, la toise de six pieds, ce qui compose treize cent vingt pas géometriques, les pas de cinq pieds, à la manière des Grecs.

De Thou, après avoir fait là-dessus de profondes réflexions, convint que M. de Candale ne s'etoit pas fort écarté de la vérité, ni du sentiments des anciens géomètres, qui rapportent que le mont Olympe, qu'ils ont cru le plus élevé qu'il y eût au monde, ne pouvait pas avoir plus de dix stades de hauteur, non plus que la mer a de profondeur. Xenagoras trouva un demi-stade davantage dans la mesure qu'il prit de la même montagne. Je dirai en passant que ce calcul n'est pas exact dans Apulée, au livre qu'il nous a laissé du *Démon de Socrate*, et qu'il y faut suppléer par Plutarque dans la Vie de Paul Emile.

Que si on multiplie dix fois le stade de cent vingt cinq pas, comptant le pas de cinq pieds, à la manière des Grecs, on trouvera mille deux cent cinquante pas géometriques ; ce qui à onze toises cinq pieds près, fait le même nombre que M. de Candale avait trouvé ; mais on laisse un calcul plus exact aux gens du métier.

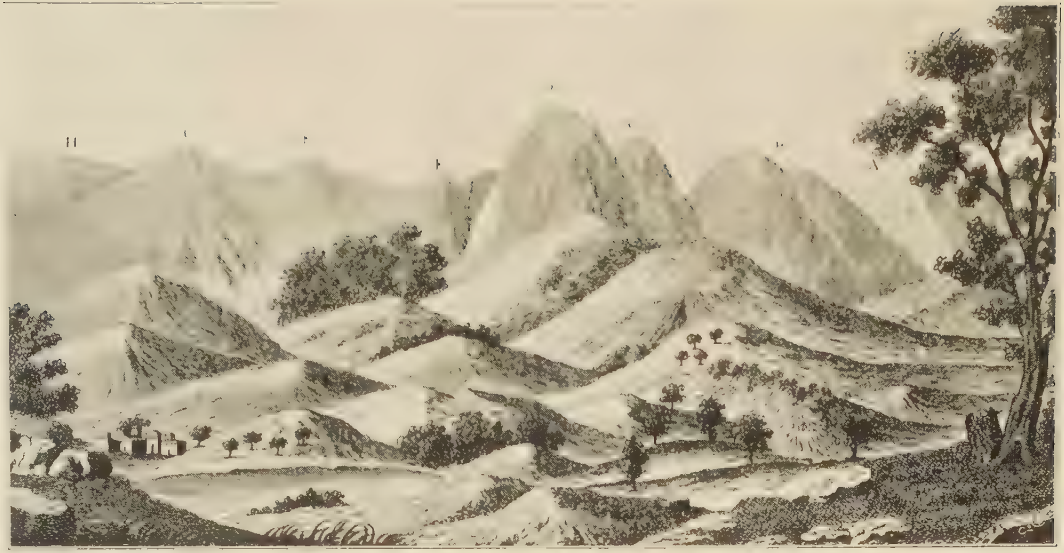
APPENDIX M.

OSSERVAZIONI
DI
ORAZIO DELFICO
SU
DI UNA PICCOLA PARTE DEGLI APPENNINI
DIRETTE
A.S.E. IL SIGNOR MARCHESE
D. FILIPPO MAZZOCCHI
PRESIDENTE DEL SACRO REGIO CONSIGLIO

AL SIGNOR CAVALIERO
D. FRANCESCO DANIELE
STORIOGRAFO DI S. M.
E SOCIO DI PIÙ ILLUSTRI ACCADEMIE.

Caro, ed illustre Amico,

Cedo volentieri al vostro grazioso suggerimento in fare unire la queste mie carte, quasi come un' appendice delle medesime, la ristampa della memoria epistolare scritta da mio figlio su la Montagna chiamata Gran Sasso d' Italia, per essere il più alto dei nostri Appennini, e che comunemente si conosce sotto la denominazione di Monte Corno. Ma oltre della stimabile autorità vostra, et dei più stretti, e cari vincoli coll' Autore, altre ragioni ancora mi hanno confermato ad eseguire il vostro consiglio. E primamente dirò del rapporto di località, cioè, per trovarsi quel Monte, come attualmente limite della Provincia,



OLD VIEW OF GRAN' SASSO D'ITALIA.

[*To face p.* 312.

così negli antichi tempi confine dell' Agro Pretuziano, del quale ho lungamente ragionato. In secondo luogo, perchè ho veduto, che varj Viaggiatori, e Naturalisti bramavano di conoscere quella Memoria mentre per essere stampata sola, e di poca mole, gli esemplari tutti erano scomparsi, ed il desiderio dei Dotti Ustaya non soddisfatto. Aggiungo a tutto ciò, che avendo egli scritta quella Memoria Odeporica pel principale scopo di far conoscere agli amatori della geologia l' altezza di quel Monte, che torreggia veramente nella catena degli Appennini, ho veduto ultimamente che un geologista Tedesco, senz' averlo mai veduto, non che visitato, o misurato, ha creduto poterlo senza fatiga idealmente riabbassare. Questo è il Signor Reuss Naturalista Tedesco, la cui tavola metrica, dell' altezza delle Montagne è stata ristampata dal celebre Naturalista Signor Scipione Breislak nel primo volume della sua pregiatissima geologia. E' vero che cotali differenze in più, o in meno non influiscono punto sulla felicità della specie, ma non è così per quella degli scrittori, chi ha travagliato e con periglio per trovare una verità fisica di qualche importanza, non può veder con piacere, se un altro dal suo tranquillo scrittojo, e senza darne ragione, l' altera, o la niega, dando una ben differente e non appoggiata assertiva. E poi chi meglio de voi, adorno di sublimi talenti e nelle Antichità, e nella Storia Naturale, conosce e sa, che in tali e somiglianti cose il pregio maggiore a l' esattezza ; poichè cotali osservazioni servono di dati a più importanti ed estese induzioni. Per tante ragioni dunque, se io ho incominciato coll' aderire semplicemente al vostro consiglio, veggo, che debbo finire col ringraziarvi, e contestarvi nuova gratitudine, che come l'amicizia non manchérà mai nell' animo di chi gode in potersi dire.

Vostro Antico Affezionatiss. Amico, e Serv.

GIOVAN-BERNARDINO DELFICO.

Mio Caro, ed illustre Zio,

Pensando, che alle vostre gravi occupazioni, ed alle noje del tumultuoso foro, possa essere di dilettevole distrazione, e sollievo il rivolgere lo sguardo ad altri oggetti, che con piacere attraggono l' attenzione dell' uomo colto, e virtuoso, is ho creduto poter ottener ciò facilmente, presentandovi oggetti del tutto lontani dalle presenti vostre occupazioni, ed invitarvi alla contemplazione di oggetti fisici, conducendovi meco, ma senza alcun periglio, per i dirupi, e valli, che con raccapriccio ho visitate sull' alta Montagna, di cui ho misurata l'altezza.

La curiositá naturale dell' uomo, e che forse più di ogni altro senso interno contribuisce ad accumulare nello spirito umano gli errori, e le verità, par che dopo il rinascimento delle lettere sia divenuta in questo secolo più ardita, ed attiva; ora spingendo i suoi voli fino alla conoscenza de' rapporti degli astri più lontani, e riuscendo a conoscerne de' nuovi; ora penetrando nelle più profonde viscere della terra, e riconducendone nuov istruzioni, e ricchezze; ora esaminando le basi del grande edificio sociale, a cercando di consolidarne le fondamenta, ora osservando i rapporti politici delle classi, e vedendo quali debbono essere per la publica felicita; ora riandando i rapporti varj delle Nazioni, e vedendo quali dipendono dall' umana natura, e come corrispondono colle vere idee di giustizia; ora nei già vilipesi laboratorj; cercando, e trovando i metodi delle grandi operazioni della natura, svelandone i misteri, e quelli applicando al più grande oggetto dell' umanità, cioè al ben' essere dell' uomo, ed all' ampliazione dei salutari beneficj della Provvidenza: ora cercando mari, e terre ignote, e riportandone nuovi profitti per l'umanità, e per le scienze. Quindi questo secolo ha veduti i più illustri Naviganti, e viaggiatori, quali delle più opposte zone, travagliando a conoscere, e misurare la grandezza della terra, quali a conoscere gli ultimi limiti dell' abitazione dell' uomo.

Ma siccome i più grandi oggetti in natura sono quelli che più attraggono la curiosità degli oziosi, e l'attenzione de' Filosofi, così su la superficie del globo le più alte Montagne sono state lo scopo di arditi viaggiatori; ed illustri sono i nomi di coloro, che sormontarono sotto la zona i gioghi delle Cordigliere; che si arrampicarono sulla cima di Teneriffa; che fra il fuoco, ed il fragore dell' Etna, o fra gli eterni geli delle Alpi vollero pur misurarne, e signoreggiarne l' altezza.

Iniziato negli studj della natura, giovine curioso; e vedendo tutto giorno dalle mie finestre la sommità del gran Sasso d' Italia, non mi fu possibile il resistere agli impulsi della curiosità, e dell' imitazione. Salutato questo Monte solo in distanza dai naturalisti fui più lusingato dell' impresa, e le tenere rimostranze paterne (ben lontano però dall' aver l'aria di dissuasioni) le descrizioni, ed i racconti de' perigli, la poca lusinga di riportar novita, il travaglio, ed il periglio effettivo, a cui mi esponeva, non poterano distogliermi dalla risoluzione.

Siccome però la curiosità scientifica è ben differente dalla volgare, e che molti si espongono a tali pene solo per potulo dire, e goder qualche momento di un' ampia veduta ; così non volendo essere di questa classe, io mi disposi a ritrarne qualche utile conoscenza, cioè misurarne l'altezza (per cui n' era stato antecedentemente sollecitato dal dotto illustratore della Geografia del Regno Sig. Giuseppe Galante) di osservare l'indole della Montagna ad oggetto di mineralogia ; e vedere i rapporti dell' altezza della Montagna con quella dell' atmosfera, e tentarvi altre fisiche osservazioni.

Sapendo intanto esser due i metodi di misurar l' altezza dei monti l' uno geometrico, ed el più antico cioè misurando gli angoli secondo le regole della trigonometria : e l' altro fisico per mezzo dei barometri ; e conoscendo pure, ch' entrambi hanno i loro inconvenienti e difetti, prescelsi il secondo, come il più facile a rettificarsi, e che io era più a portata di eseguire. Presi quindi per le mie osservazioni, e misure due barometri, e quattro termometri della miglior costruzione, de' quali darò qui sotto la descrizione. Un barometro, e due termometri li portai meco, e lasciai gli altri in Teramo al mio bravo, e dotto cugino Sig. Eugenio Michitelli per far le osservazioni di rincontro.

Ciò disposto ai 25 Luglio dell' anno 1794 mi partii per visitare questa Montagna, che veramente torreggia sulla lunga catena de' Monte Appennini, che dividono il Regna e l' Italia tutta nella sua lunghezza, e che perciò è generalmente divisato col titola di Gran Sasso d' Italia. Benchè presso gli antichi scrittori non se ne trovi ricordanza, egli è pur da credersi, che forse non con altro nome l' individuassero, che col presente, cioè Monte Corno, poiche tal denominazione usarono per altri Monte de simile apparenza, cioè che si ergono in una punta molti elevata, e svelta in proporzione della gran massa del Monte. Quindi esso si vede a grandissima distanza ; e sembra in queste parti l'ultimo scaglione della favolosa opera dei Giganti, giacchè facendo quasi un sol corpo con altri monti della catena, li supera tutti nella sua elevazione. Questa continuazione de Monti si estende dal S.O. al N.E. separando questa Provincia da quella dell' Aquila, e prende le seguenti denominazioni cioè (Tav. I.) A. Montagna di Fano Adriano dal nome di un paese, che gli è quasi alle falde, B. Montagna d' Intermesoli, C. Corno piccolo, o Montagna della Pietra. D. Corno grande, o Montecorno, E. Montagna delle tre Torri, F. Montagna di Vado, G. Montagna di Pagliari, H. Montagna dei Castelli.

Or benche intorno a tali Monti non si conoscono nè monumenti antichi nè avanzi d' antichità ; e dalle denominazioni, che tutt' ora rimangono di Fano Adriano, e di Fano di Corno a due piccoli paesi, si rileva, che vi fossero anche anticamente delle popolazioni, e che il gran Monte istesso fosse un oggetto di culto religioso, e quasi l' Olimpo dei popoli vicini.

Per salire a quest' Olimpo la mia prima gita fu ad Ornano (dieci miglia lontano da qù, andando verso S.O.) piccolo paese appartenente in feudo all' illustre famiglia della Valle Mendozza. Esso è situato a N.E. dalle falde della Montagna su di un piccolo piano soprastante ad un' amena e fertile campagna, resa tale dalle acque che la regalano di tutte le particelle pingui nascenti dalla decomposizione dei vegetabili della Montagna medesima, che inoltre per la situazione contribuisce ancora a rendere nell' inverno molto dolce la temperatura dell' atmosfera. Avendo quì allogiato in casa del Sig. D. Luigi Petrilli (il quale con i di lui figli assai studiosi mi furono poi di scorta ed utile compagnia) osservai gl' istrumenti, e trovai barometro 26 : 9 : 00, termometro all' ombra + 13 gradi. Termometro al Sole + 27. La sera poi ricevei da Teramo le osservazioni fatte colà dal mio cugino D. Eugenio Michitelli, al quale aveva lasciato l' incarico, che il di 26, osservasse per varie ore il barometro, ed i due termometri, acciò qualcuna delle sue osservazioni s' incontrasse ad esser fatta nell' istesso momento, che io faceva la mia, e quella che s' incontro, fu barometro 27, 4, 75, termometro all' ombra + 22, termometro al Sole + 28.

Or da queste osservazioni io conchiusi, che Ornano si trovava elevato sopra il piano di Teramo di 649 piedi Parigini.

Il metodo che is ho tenuto per ricavare la suddetta altezza è quello di de Luc, cioè riduco a sedicesimi di linea le altezze barometriche, sottraggo da esse il numero dei gradi del termometro all' ombra, se saranno positivi, e li aggiungo, se saranno negativi, poichè ognuno di essi corrisponde ad un sedicesimo di linea nel barometro. Di tali risultati trovo i Logaritmi, e ne prendo la differenza, questa differenza la moltiplico per il doppio del medio tra i gradi dei due termometri al Sole, che è lo stesso, che la loro somma, e lo divido per 1000, e secondo che il quoziente sarà positivo, o negativo, l' aggiungo, o tolgo dalla suddetta differenza dei Logaritmi. Questa differenza dei Logaritmi esprimerà in millesimi di tesa l' altezza cercata. Dunque acciò l'esprima in piedi bisogna moltiplicarla per 6, e dividerla per 1000.

La ragione di queste operazioni è inutile, che qui la scriva, poichè nel citato Autore, inventore di questo metodo si trova minutamente esposta, e tutto questo lo esprime colla seguente formola, chiamando a l'allezza cercata, b la differenza die Logaritma, c il grado medio, $a = b \mp \frac{b \times 2\,c}{1000}$. Dunque per le nostre osservazioni di Teramo ed Ornano abbiamo, riducendo le altezze barometriche a sedicesimi di linea 5260, e 5136 : i termometri + 14, e + 13, che sottraendoli dalle suddette altezze ridotte si ha 5246, 5136 : i termometri + 14, e + 13, che sottraendoli dalle suddette altezze ridotte si ha 5246, 5123, i loro Logaritmi saranno l, 5246 = 3, 7198283, e l, 5123 = 3, 7095244. Dunque la differenza sarà 103039, 19083 che moltiplicata per $\frac{6}{1000}$ trascurando le minuzie sarà 618. I due termometri al Sole furono l' uno + 27, l' altro + 24, perciò il doppio del loro medio sarà + 51, dunque sostituendo i termini particolari alla formola generale $a = b + \frac{b \times 2\,c}{1000}$ si avrà $a = 618 + \frac{618 \times 51}{1000}$ il calcolo indicato, trascurando le minuzie si avra 649 ; e sarà l'altezza cercata.

Collo stesso metodo io ho calcolato le altre misure, delle quali tutte poi facendó la somma ho avuto l' altezza della sommità della montagna dal lido del mare.

Nel giorno 29 alle ore undeci e tre quarti pomeridiane mi partii con i miei ospiti, domestici, ed altra gente del luogo che avevano prattica della montagna ; e dopo il cammino di circa quattr' ore giungemmo in un luogo detto *Arca-Pietra* H. (Tav. II.), dove ci convenne licenziare le vetture, e raccomandarci alle proprie gambe. Ivi allo spuntar dei primi raggi del Sole ammirai per qualche tempo la sommita della montagna illuminata, mentre al basso erano ancora poco rischiarate le ombre notturne. Essa era fortunatamente sgombra di quelle nebbie di vapori, che spesso quà, e là la ricuoprono, e la rendono quasi veneranda. Quindi con quel piacere che le grand' impressioni producono, io vedeva la base della montagua in tutto l' apparato della più vigoroso vegetazione verdeggiare variamente ne' boschi antichi e con le amene praterie, che facevano una vaga alternativa di chiari, ed oscuri, ed alzando poi lo sguardo mi si presentava il monte in tutto il resto della sua elevazione spoglio di ogni vegetabile produzione, lacero, e maltrattato dai lunghi secoli, in cui ha dovuto essere bersaglio delle meteore le più violenti. Gli sfaldamenti, le alluvioni, i tremuoti dove gli hanno lacerati profondamente i fianchi, dove lo hanno quasi tagliato perpendicolarmente, dove hanno lasciate delle punte, ove solo possono riposare gli abitatori dall' aria. Mentre io riposava godendo di questo spettacolo magnifico, i vapori che incominciarono ad elevarsi, in breve tempo dispettosamente me ne privarono. Incominciai anche a temere, che la pioggia, camin facendo, fra quei perigli ci sorprendesse ; ma i miei socj conoscitori delle meteore, che ivi sogliono accadere, mi liberarono da ogni sospetto dicendomi, che per le costanti loro osservazioni, quando le nubi che si veggono sulla cima di Corno, si diviggono verso Sud, non esserci punto indizio di pioggia, ma sicura al contrario nella direzione opposta ; e dubbia poi, se le nubi volgessero per gli altri due punti dell' Orizonte. Fortunatamente esse avevano la prima direzione, e sulla parola degli esperti, che pur come me dovevano aver cara la loro salute, io mi rincorai pienamente a proseguire il viaggio. Forse anche quelle nuvole contribuirono ad assicurare il cammino, giacché così non avendo distrazione di oggetti lontani, dovetti applicare tutta l'attenzione sul suolo, su cui portava i miei passi. Ed in vero pur troppo ve n' era bisogno, poichè molto spesso si costeggia la montagna nelle più impervie situazioni, mettendo piede innanzi piede, o sopra la più mobili, e sdrucciolevoli frane, o rampicandosi per le punte delle rocche, le quali se fossero venute meno, o il piede avesse fallato, si correva il rischio di misurarne con ben cattivo metodo l'altezza. Se per questo verso adunque fu un vantaggio, che la montagna fosse cosi ingombra, non fu meno vantaggiosa per l'immaginazione quella salutare oscurità, coll' impedirci il terribile aspetto dei dirupi, e delle voragini profonde, che soggiacevano. Intanto poteva pur caminando osservare, che dovunque la montagna era scoverta dalla terra vegetabile, tutto l' intero masso si riconosceva di pietra calcare uniforme di grana rozza, e bianca, senza osservabili varietà : così a stento, ed adaggio andando avanti giunsi in un esteso ripiano quasi interamente circondato da alte rocche, che ne formano come una maestosa conca. Per indicarne in qualche modo l' elevazione basterà il dire, ch' essa è continuamente coverta di neve non eguale in durezza al gelo, ma ben solida e ferma per non ricevere alcuna impressione dalla più forti pedate dei Contadini, che mi accompagnavano. In mezzo a questa neve scorre un ruscelletto perenne, che presenta l'osservabile fenomeno di non gelarsi ancorchè scorra sopra un letto di gelo saldissimo. E' da credesi però, che di notte debba gelare almeno su la superficie, essendomi paruto poter riportare quel sito al grado inferiore di congelazione, e che il calor solare non giunga a liquefarlo sino al fondo pel raffreddamento prodotto dall' evaporazione dell' acqua medesima. Si può però pensare che l' acqua appena incomincia a formare i piccolissimi primi achi per gelare, essi sono portati via dalla corrente, e non possono attrarsi con quella polarità necessaria per formare i primi cristalli di gelo, e così scendendo al basso, ed in cambio di proseguire la congelazione, ritornano essi achi a rifondersi.

Sarà forse questo il fonte nomato dal Pontano nel suo libro *de fontibus et fluminibus*, che dice essere tal fonte alla cima di Corno, e questo piano vien comunemente chiamato cima di Corno. Egli si esprime così—

Est præcutinis in montibus horrida cautes,
Indigenæ vocitant Cornu de vertica cujus
Manat aquæ gelidus per saxa rigentia torrens.
Hunc non antra cavi Montis, non humida Vallis
Eructat, non vis superas impellit ad oras.
Verum aer Ripæ admotus circumque supraque
Rimoseque latens sub fomite sudat ut : ut ipsum
Frigus et algentem sentit per membra rigorem,
Stillatimque cadit fluitans, cursumque secundat.
Ergo, et perpetuus tenor est stillantibus undis.
Perpetuum quoniam servat natura tenorem
Aeris, aeriam sese vertentis in undam.

Su questo piano vanno sovente i cacciatori di Camozze ; e dessi, ed altri, che vi sono giunti han creduto, e detto di essere arrivati alla sommità della montagna ; ma chi vi si trova, vedendo le cimate, che lo circondano, vede pure quanto ancora resti per l’impresa. Si può immaginare facilmente, che il resto della montata, sia il più malagevole e scabroso. In fatti le frane sono più sfuggevoli, le rocche più ripide, i dirupi più profondi, ed il camino più straripevole e da far veramente raccapricciare. La gente di compagnia in queste situazione mi assistè però con vero affetto e premura, e quasi vi avevano presto un’ interesse eguale al mio. Avanzando nel camino ci elevammo al di sopra delle nuvole, e ciò oltre al farci godere del magnifico spettacolo di un cielo serenissimo, mentre l’inferior parte dell’ atmosfera sembrava un immenso mare di nebbia, ci fece anche il vantaggio di toglierci dalla vista i precipizj, e le immense voragini sottoposte.

Così felicemente arrivammo sull’ultima cimata, dove non è da dire, se io avessi bisogno di riposo, e se al momento provassi altra sensazione, che quella della stanchezza. E un’ osservazione già fatta dal celebre Saussure e dagli altri viaggiatori di Monti, che ad ogni piccolo tratto di salita si prova un accasciamento straordinario e spiacevole, ma che ad ogni piccolo riposo similmente si rinfrancano le forze con un non so che di soave giovialità, che fa dimenticar subito la pena sofferta. Quello che io provai nella difficile salita mi riuscì più sensibile giunto alla sospirata metà del mio faticoso cammino. Un piccolo piano inclinato offre la sommità della montagna quasi fosse un coverchio, o un gran lastrone ivi sopra imposto di massa uniforme della pietra istessa, e che servi pure di letto a tutta la compagnia.

Non e facile l'esprimere quel misto di sensazioni che provai al trovarmi per la prima volta sulla cima di una così alta montagna, e come l'orrore dei passati perigli, e l' aspetto delle balze le più alpestri, delle valli voraginose, dei dirupi più spaventevoli, e dei grandiosi sfasciumi che da più parti mostra il monte, fosse tutto superiormente compensato dalla veduta, che comprendeva il maggior spazio che si fosse presentato al mio sguardo e dall' interno contento di verdermi giunto dove io desiderava. Se il tempo fosse stato del tutto sereno, avrei goduto del grandioso quadro di vedere i due mari che bagnano l' Italia, e sicuramente le opposte sponde della Dalmazia ancora ; ma le nubi vaganti non mi permisero che delle parziali vedute.

Pasciuto così alquanto l' occhio e lo spirito posi in opera i miei Istrumenti per fare le osservazioni, ma con mia somma sorpresa il mercurio scese tanto nel vetro, ch' empì il pozzetto interamente, non ostante che aveva abbassato il fondo di pelle per quanto si poteva. Dunque non potendo ingrandire di più la capacità del pozzetto per riabbassare il livello del mercurio, pensai di sottrarre per allora una porzione di mercurio dal pozzetto, e con ciò rimetterlo a livello. Così feci, e trovai barometro 19, 8, 25, termometro all' ombra + 13, termometro al sole – 12.

Quella dimora benchè mi fosse assai dilettevole, convenne però per avviso dei compagnia presto lasciarla, per poter esser fuori dei perigli colla luce del giorno, onde con rincrescimento dandole un addio, ripigliammo lo sdrucciolevole camino per tornare d' onde eravamo partiti, e nella miglior maniera possibile ristorarci. Erano le ore 4½ pomeridiane, ed il cielo tuttavia sereno sul nostro capo, sotto i nostri piedi i vapori già si condensavano in pioggia, che fortunatamente piccola fu, e di poca durata ; ma le nuvole vollero accompagnarci in tutto il regresso, se non tanto fatigoso, più pericoloso al certo della gita. Giunto la sera a casa trovai colà fatte le osservazioni in riscontro alle mie, e quella che si fece allo stesso momento fu barometro 26, 8, 50, termometro all' ombra + 13, termometro al sole + 20⅝. Dunque col calcolo di de Luc, che ho indicato di sopra conchiusi essere la cima di Monte-Corno elevata sopra di Ornano di 8039 piedi parigini.

Benchè dopo riposato per un giorno in casa dei miei buoni ospiti di Ornano io avessi fatto qualche altra scorsarella in alcuni luoghi della montagna, pure pel tempo, e per altre circostanze, che mi richiamavano in famiglia non mi riusci di soddisfare ulteriormente la mia curiostà e visitare dei luoghi vantati per contenere ricchi oggetti di mineralogia. Siccome però tal mira non doveva abbandonarsi, e che in quest' anno me ne sono occupato ; così per termine al primo oggetto vi dirò solo, che dopo tornato in Città presi collo stesso metodo l'altezza di questa Città dal livello del mare, e così mi trovai avere tre termini dell' altezza cercata, cioè Teramo dal lido del mare 889 piedi parigini, Ornano da Teramo 649, la Vetta di Monte-Corno da Ornano 8039. In tutto dal livello del mare 9577 piedi parigini.

In fine di questa lettera aggiungo un piccolo quadro dove in un colpo d' occhio si veggono le osservazioni per la misura della suddetta altezza unitamente al calcolo ed ai risultati.

La prima colonna verticale contiene le date e le ore in cui si son fatte le osservazioni. La seconda e la terza in ogni cascella contengono quattro cifre in alto, e due sottoposte ; e queste sono, le prime le altezze barometriche ridotte a sedicesimi di linea, le seconde sono i gradi del termometro all' ombra che essendo positivi vanno sottratti dalle cifre superiori ; sotto poi di queste vi è il residuo di detta sottrazione. La quarto contiene il risultato per i logaritmi, cioé la differenza delle altezze corrette dal termometro all' ombra moltiplicate per 6 e divise per 1000. La quinta colonna contiene i gradi dei termometri al sole che correggono l'azione del calore sull' aria. La sesta contiene il doppio del grado medio dei gradi dei suddetti termometri, che é lo stesso che le loro somme rispettive. La settima contiene le altezze parziali, ed in piede di essa la somme di tali altezze parziali, che dà l' altezza totale dalla cima della montagna al lido del mare. In fine nell' ottava colonna ho messo i nomi dei luoghi di osservazione.

Per illustrare l' altezza di Monte-Corno non intendo punto passare in rivista tutte le altre Montagne, delle quali è stata con qualche esattezza misurata l' elevazione ; ma gioverà il far rilevare col paragone, che ha pur esso ben meritato la denominazione di *Gran Sasso d' Italia* non avendone alcuno nella catena degli

Appennini, che lo superi, o l' eguagli. Io non lo paragonerò dunque col *Monte Bianco,* che è il più alto Monte del nostro Emisfero ; ma mettendolo al confronto, in primo luogo del Legnone chiamato dal Giovio *Lineonis Catena,* e da altri *Lineone* misurato dal celebre P. Pini, trovo che Monte-Corno lo supera di 930 piedi parigini, paragonando al nostro Vesuvio la differenza è di 3659 ; e finalmente confrontando coll' Etna, di cui a ragione si è ammirata l' altezza di 10336 piedi, è piccola la differenza tra il grande Ignivomo della Sicilia e del nostro Gran Sasso, non restandogli inferiore, che di piedi 459.

Or siccome mi aveva prefisso di riveder di nuovo la Montagna, specialmente per vedere che potesse contener di vero la voce popolare, chi vi sieno delle miniere importanti, e specialmente di ore e di cinabro ; verso la metà di Luglio, solo tempo in cui è permesso passeggiare nel Gran Sasso, mi portai di nuovo in Ornano, donde si rende più agevole il far delle scorse nel circondario del Monte. Prima però d' ogni altra cosa volli osservare, se questa parte più alta della catena degli Appennini possa, come alcuni hanno creduto, appartenere a que' Monti, che furono detti primitivi, cioè contemporanei alla creazione, oppure appartenga a quei, che diconsi di successiva formazione. Parmi però esser costretto a dire, che sebbene quest' enorme anticaglia possa vantare non so qual indeterminato numero di secoli, è da non credere che possa pretendere ad un' antichità contemporanea alla creazione. Imperciocchè fra tutt' i sistemi, che si sono fatti sulla teoria della terra, sul consolidamento, e forma primitiva di questo Pianeta, trovo il più uniforme alla ragione, ed alla rivelazione, quello della cristallizzazione, alla qual cosa par che alluda Mosè, dove dice, che lo spirito del Signore galleggiava sulle acque, nelle quali, e per le quali le materie attraendosi secondo le leggi dei primi rapporti si poterono ben formare quei nuclei primitivi, e quindi nelle successive rivoluzioni del globo formarsi gli altri Monti secondi circostanze a noi sconosciute.

Tutta la catena degli Appennini nulla ci fa scorgere di quella uniformità primitiva, nè punto di quella materia, cui la primeva antichità è attribuita, anzi tutto sembra lavoro delle acque, e dei secoli.

Ogni memona osservazione poi basta per poter giustamente ravvisare, che questa lunga catena tanto ora interrotta, divisa, e suddivisa, e quasi frastagliata, fosse stata una massa continua ridotta poi allo stato presente dagli eventuali sfasciamenti e lavori delle acque.

La stratificazione dei Monte, e l' essere i strati ora inclinati, ora verticali, talvolta orizontali, ed il trovarsi i varj strati neppure disposti secondo le leggi della gravità, dimostrano abbastanza, che, questa specie de monti furono opera del tempo, e non di un originale lavoro. Tali sono i nostri Appennini, e presso a poco i Subappennini ancora fino ai menomi Colli che si estendono fino al mare. I più alti sono di pietra, o terra calcare omogenea di grana rozza a segno di non poter prendere pulimento ; gli altri sono di cote, o pietra arenaria, detta da nostri *tofo*, e che i Toscani chiamano *pietra serena* più o meno compatta, più o meno bianca, qualche volta mescolata con ossida di ferro, o gialla o rossiccia, ma tali strati sono essi ben differenti nelle qualità fisiche, e nelle chimiche : la terra calcare vi si trova qualche volta mescolata ma l'argilla vi ha spesso degli strati, che si tramettono con essa.

Or sebbene abbia detto, che i monti più alti, et fra essi Monte-Corno sieno di materia calcare, non ardirei però dire, che tale fosse ancora il nucleo e la base, giacchè in alcun sito pur vi si vede sottoposta la pietra arenaria, come ho detto. L'argilla che è alternata nei Subappenini molto frequentemente con i strati di pietra arenaria, è in molti luoghi riccamente insuppata di petrolio. Questa osservazione fatta già alcuni anni indietro, mi fece pensare, che in queste contrade si potesse trovare del litantrace o carbone fossile in molta quantità. In fatti avendone tentata la ricerca in varj siti insieme col valente Chimico Signor Dottor Comi, e ol Professore Quartapelle, le nostre investigazioni furono abbastanza fortunate, avendone trovato in diversi siti a qualche distanza della Città, e più verso i monti. Molti filoncini ne scorgemmo su pel corso del torrente Viziola, ed in altri burroni, e fossate ; e mi riusci poi di trovarne uno che potrebbe essere importante, mostrandosi in situazione orizontale nella larghezza di quattro palmi, e due e mezzo in circa di altezza. Di ciò fin d' allora ne diedi parte al Governo, come vi potrete ricordare ; ma altre occupazioni più importanti tolsero forse il tempo per rivolgersi a questa.

Con tali vedute generali su l' indole di questi monti, e con poca speranza di trovali metalliferi, benchè ciò non fosse impossibile, incominciai dall' informarmi dei luoghi dove più probabilmente potevano trovarsene degl' indizj, cioè grotte, o caverne che si' dicono visitate dai voluti trovatori dell' oro.

Ai 12 Agosto partii da Ornano alle tre pomeridiane per trovarmi sulla montagna di Vado allo spuntar del sole, ed attraversai alcuni piccoli monti, che sono quasi una diramazione della gran montagna : essi sono uniti quasi ad angolo retto, e formano que, Subappennini che andando verso Nord-Est si estendono fino all' Adriatico. Questi monti si vedone vestiti di roveri e querci fino a più della meta dell' altezza, ma al di sopra mostransi quasi del tutto spogli ed ignudi. La loro base è formata di sottili strati argillosi quasi orizzontali, ed il loro masso per quanto si può giudicare è della solita pietra calcare, di cui quantità dil macigni di varie grandezze l'ingombrano da ogni banda. Tra questi monti passai il Magone, fiume che poscia si unisce a Vomano, et pel piccolo Castello chiamato Fano di Corno si risale per un' altro monte, la cui valle lo divide dalla montagna di Vado.

La Valle, che soggiace a Fano di Corno offre in mezzo all' asprezza degli Appennini un raro spettacolo di ricca vegetazione, tanto di quella spontanea nei monti, quanto dell' altra promossa dall industria ed attività umana. Era quindi un non so che di vago, e di sorprendente nel tempo istesse il vedervi bei campi di biade, ed altre piante cereali, e la vigna ancora ricca de' suoi doni. La località spesso decide di questi vantaggi, ma per mancanza di necessario ardire molti luoghi ne restano privi.

Prima di giungnere al suddetto Castello di Fano, D. Eugenio Michitelli disegnò l' aspetto di Monte Corno, come si vede nella Tavola II. Questa tavola ho stimato utile d' inserirvela non solo per mostrar da vicino l' aspetto di un lato di Monte Corno, ma perchè da essa si scorgono i confini fra la terra vegetabile coltivata, ed i boschi, e tra questi, ed il nudo Sasso. La campagna A B C D in cui vedesi il piccolo villaggio F di Fano è coltivata, e seminata a grano fino all' ultimo colle M, dal quale incominciano i boschi, e giungono fin dove veggonsi nella tavola medesima, il di più è nuda pietra.

La salita della montagna di Vado s'incomincio dopo tramontato il sole; e la stanchezza, e la notte ci avvertirono del bisogno di riposo e di ristoro. Sotto un gran ciglione del monte, che forma quasi una tettoja, ci condussero le guide, ed ivi a simile oggetto trovammo molti vetturini, che fanno la vatica del vino per la Provincia dell' Aquila.. . In un alloggio così arioso, e scarso di ogni morbidezza fui pur abbastanza fortunato per prender sonno, e non udire il concerto, che facevano i Lupi a qualche distanza, che fu bene ascoltato dalle mie guide, e domestici, i quali mi dissero, che alcuni giorni prima avevano fatta stragge di una disgraziata gregge. In quei tempi questi nemici vi abbondano, ed i pastori sono assai poveri per non dover far spesso economia di alimento con i loro compagni custodi.

Al far dell' alba fui fuor del bosco, ed incominciai a salire la parte nuda della montagna. I primi strati, che compariscono sono alquanto inclinati all' orizonte. La montagna finisce in una cresta di malagevolissimo accesso. Per essa avanzandosi verso la montagna di Pagliara, i strati incominciano ad inclinarsi, ed in fine divengono quasi orizontali. Colla stessa inclinazione che finiscono alla montagna di Vado, ricominciano in quella dell' Isola, nella quale però subitamente tornano ad essere verticali. Tornando indietro passai alla montagna detta delle *Tre Torri*, la quale, come quella di Vado dalla parte meridionale offre un' ottimo pascolo, ma dall' opposta è un vero sfasciume. Dalla cima di questa si osserva il lato di Monte Corno che guarda S.E., e la stratificazione di esso disposta nella seguente maniera. I strati più bassi, che si distinguono sono inclinati all' orizonte di circa 45 : quindi dell tutto orizontali, sopra i quali immediatamente ne sovrastano dei perpendicolari, e sopra di questi finalmente se ne veggono dei quasi orizontali. Di fatti la cima di Corno Grande termina in un piccolo piano pochissimo inclinato, come ho di sopra accennato. La pietra di cui è composta la montagna delle Tre Torri è pure la stessa dell' altra, ed egli è quì d' avvertire, che in tutti questi monti, che anno una base, o pedale comune con Monte Corno, le stratificazione perfettamente si rincontrano colla maggiore corrispondenza nella istess' altezza, a livello, ciocchè dimostra le primitive continuità, e che le immense valli trapposte sieno stato lavoro de secoli, e delle meteore.

Seguitando il camino, e ripigliando poi la strada battuta passai per la piccola terra dell' Isola, sotto cui passa Magone, e mi avviai pel letto del torrente detto Ruzzi, dove sempre andando fra i gran macigni rotolati, giunsi alla montagna di Pagliara. Nel corso del fiume tutto pieno della solita pietra non potei scorger altro, che alcuni pizzi di spato calcare Romboidale, ed alla sinistra sponda uno grosso banco di terra calcare rozza al tatto (*creta pulverulenta rudis* Wallerii). Questo torrente ha formato nella montagna un gran squarcio, o voragine chiamato il *Fosso del mal passo*, pel quale quà, e là si trovano varie cascate di acque vaghissime a vedersi ; ne io potetti resistere alla tentazione di trapassarne una, che nel suo empito si scosta dalla rupe, e serve di portiera trasparente ad una grotta. L'andar però molto per tal fossato era egualmente incomodo, e pericoloso, ed attraversatola dopo qualche camino giunsi su di un' altra voragine molto maggiore dell' antecedente, e pur essa fornita di cascade, e getti di acqua, dei quali uno va con tanto empito, che ne' suoi minutissimi spruzzi tutta l' acqua è portato via dal vento. Questa voragine è quella, ch' è conosciuta sotto il nome d' *Inferno di S. Colomba.* Quì osservai gli effetti straordinarj della caduta de' gran massi di neve, che poco sarebbero credibili, se il fenomeno non fosse parlante sul luogo medesimo. I gran massi di neve, che perdendo l' equilibrio si staccano dall' alto della montagna, ingrossandosi per via, vanno giù con tanto furore, che schiantano tutti gli alberi, che loro si trovano d' avanti, e comunicano tanta violenza alle colonne di aria che si spingono d' avanti, che basta a far soffrire agli alberi della parte opposta la stessa sventura de' primi, colla sola naturale differenza, che dove quelli restano prosternati colla cima in giù, gli altri restano schiantati e rotti nella loro naturale situazione ; gl' Indigeni chiamano tali fenomeni le *Gravure.* Il fragore che si produce è orribile, ed esse talvolta occupano tantó spazio, che arrivano a devastare delle intere selve. Questo fenomeno è stato osservato anche dal celebre M. de Saussure nei suoi *Viaggi per le Alpi.*

Volendo finalmente visitare la montagana che dicesi *d' Intermesoli*, il mio camino fu diretto per la montagna di Forca verso il paese detto la *Pietra-camela.* La Montagna di Forca è un ramo della catena grande, ed è unita quasi ad angolo retto con *Corno piccolo.* Essa è quasi tutta coverta di faggi e di querce, e di belle praterie, che sorgono su di un buon strato di terra pingue di color nericcio (*humus atra Wallerii*). I strati verso la base fino al terzo della montagna sono quasi verticali, ma poi cominciano ad inclinarsi, finchè verso la cima sono inclinati sotto un angolo di circa 40 gradi. Sormontata questa montagna, e passando per una valle tutta arborata di faggi, s' incomincia a risalire per giungere alla Pietra-camela, e gli strati si vendono alternati da pietra arenaria, e pietra calcare ; e giunto al detto paese cui *Corno piccolo* sovrasta, si vedono le sponde di un torrente, che dalla montagna vien fuori, aver una sponda di calcare, e l' altra di pietra arenaria. Passata indi la Pietra, e caminando sul lato settentrionale di *Corno piccolo* si attraversa una Valle, che divide questa montagna da quella d' Intermesoli ; e se le rovine sono i segni di antichità, questa montagna d' Intermesoli ne mostra i maggiori. Ma riflettendo che questa montagna ha una base debole, e più soggetta al' ingiurie delle acque, si trova la cagione delle maggiori rovine. Qui fu il termine del mio penoso camino ; e qui finalmente visitai la grotta della *Vena dell' oro.* Nulla fui sorpreso però in trovare in vece di oro del ferro mineralizzato in piriti giallognole e lucenti ; poichè questo e il comune inganno del volgo. Tuttavolta per accertarmene volli sottoporla a replicate analisi chimiche, dalle quali non ebbi, che i componente delle piriti. Altro luogo di simile indicazione mi sarebbe restato a visitare, ma allora non fu reperibile, e solo dopo il mio ritorno in Città fui avvisato essersi già rinvenuto. Non spero da questo nulla di più, nè in generale da' nostri Monti si possono sperare ricchezze metalliche. Quali che sieno le miniere, non sembra che gli Appennini possono darci altro che ferro, già conosciuto in diversi luoghi, ma per restringermi solo ai nostri, potrebbero pur essi dare ricchezze non indifferenti di altra specie, cioè di legname di ogni specie, e di carbon fossile. I varj legni per costruzione, e per contiguazione, e per tutti gli altri usi delle case, nascono, e periscono su i nostri Monti, mentre tanto questa Provincia, quanto tutto il Regno dalla parte dell' Adriatico fa uso del legname forastiero. Se in alcuni luoghi le strade fossero rotabili, ed il fiume Vomano ridotto a servire lo Stato, che danneggia, i Cantieri potrebbero esser ricchi coi legnami del Regno, e tanto denaro non si esportarebbe dalla Provincia per tavole, e travi di ogni specie. Sarebbe dunque un affare di calcolo il vedere qual' è il bisogno annuo del Regno per questo genere, e quale sarebbe la spesa necessaria per profittare de' doni della Natura ; e ciò fatto si rileverebbe forse ad evidenza, che tornerebbe conto il render traficabili quei luoghi.

Il solo uso, che ora se ne fa a quei boschi, si riduce a poche tavole e travi di brevissima misura, ed a pochi lavori di legname, conosciuti generalmente sotto il nome di *arche*, che nella loro rozzezza pur meritano di essere considerate per l' arte, e per la comodità. Sono esse di varia mole ; e gli usi comuni a cui sono destinate si riducono, a servir di madie per impastar il pane, ed allora hanno i piedi di oltre due palmi di altezza ; o a conservar grani, ed altri generi, ed allora sono di maggiore capacitâ, e senza piedi. Sono lavorati con tale industria, che non vi si fa uso nè di chiodi nè di altri ferri, nè di colla ; e con tutto ciò restano ben custoditi dall' acqua, che sù vi potesse cadere, ed anche dalla polvere. Poche caviglie di legno servono a mantenerle, e queste potendosi togliere a piacere, le arche si riducono ad un piccol fascio di tavole facilmente transportabili. Or tutto il magistero consiste nel fare e disporre le tavole per modo, che per mezzo di un' incavo longitudinale da una parte abbiano una ferma commesura fra loro, che sebbene di legno sottile sono pure di una straordinaria fermezza. Queste, ed alcune poche grossolane opere al torno sono intanto i soli lavori di que' poveri Montagnari, cui sè solo fossero un poco migliorate le strade, potrebbero ritrarre maggiori profitti dalla loro situazione.

Per dare termine intanto a questa ormai lunga lettera, aggiungo solo, che se non vi ho parlato punto di Botanica, è perchè poco conosco questa scienza ; ma il paragone semplice, che ho potuto fare, non mi ha fatto rilevare positive differenze colle altre piante volgari nella parte inferiore della Provincia.

In quanto al Regno animale potete pure immaginare, che quì non mancano i soliti abitatori de' Monti, che per non equivocare colle denominazioni volgari indicherò coi nomi del celebre Linneo.

Uccelli. *Tetrao perdix. Tetrao Rufus. Hirundo riparia. Corvus corax. Corvus coronæ. Falcus nisus. Falcus fulvus.*

Quadrupedi. *Lepus timidus. Canis lupus. Canis vulpes. Sciurus vulgaris. Mustella martes. Capra rupicapra. Ursus arctos.*

La mancanza degli Eudiometri, ed altri Istromenti Pneomatici mi privò del piacere di fare delle osservazioni sulle condizioni dell' aria ; non parendo ancora nulla deciso della maggiore, o minore respirabilità di essa in certe altezze ; e la brevità del tempo non mi diede luogo a fare osservazioni elettriche importanti. Compatirete perciò l' imperfezione di questo scritto, ed abbastanza avrò ottenuto l' intento, se vi sarà servito di piacevole distrazione, e sollievo, che reputo necessariissimo alla vostra preziosa salute, che io vi raccomando, quanto posso, come uno che prende parte ai pubblici voti che tanto meritate ; e pieno di quei sentimenti di vero rispetto, e sincera affezione, che vi devo, vi bacio la mano.

TERAMO, 2 *Marzo,* 1796.

INDEX.

Aarau, 206, 207
Abauzit, Firmin, 122
Abraham, 1
Adriani, Count, 157
Aiguille, Mont, 28, 29, 35, 36, 37, 210, 215
Alagna, 189, 190, 194, 197
Aletsch Glacier, 207
Allèves, M. d', 147
Almeida, Camena d', 211
Alpina, 204
Alpine Club, English, 26
— — French, 28
— — Italian, 26
— — Swiss, 182, 250
Alpine Journal, English, 206, 207
Altmann, J. G., 202, 203
Amiens, Academy of, 128
Angeville, Mlle. Henriette d', 240, 241, 242, 243, 244, 245, 246, 247, 248, 249
Anhalt-Dessau, Princess of, 151, 152
Anich, Peter, 210
Annecy, 99
Anterne, 136, 138
Aoste, Val d', 96, 98, 116, 197
Apuleius, 216
Ararat, 1
Arbairon, 109, 116, 117, 121, 251
Arca Pietra, 235
Argentière, 108, 117
Arlaud, Mr., 89
Arnaud, Master Pierre, 33
Arve, 91, 92, 93, 94, 102, 104, 105, 106, 108, 109, 117, 121
Athos, Mount, 421
Atlas, Mercator's, 82
Augerd, Madame, 246, 249
Augustine, Saint, 22, 23
Austria, Archduke John of, 210

Baedeker, 14, 38, 98, 248
Baillie, Mr., 87
Balmat, Adolphe, 179
— Auguste, 181
— Dominique, 156
— Gédéon, 163
— Jacques, 163, 164, 165, 166, 167, 168, 169, 170, 172, 173, 174, 175, 176, 178, 179, 180, 183, 199, 248
— Pierre, 167
Balme, Col de, 108, 158, 254
Baulacre, M., 89
Béarn, Bains du, 213
Beaumont, Albanis de, 205, 240
Beck, Jean Joseph, 189, 190, 192, 193
— Valentine, 192
Beichgrat, 207
Bell, Mrs. R. C., 25

Ben Jonah, Rabbi Benjamin, 211
Bérenger, M., 139, 140, 157
Berkeley, Bishop, 4
Bernard, Great Saint, 4, 24, 64, 139, 145, 146, 198
Berne, 38, 42, 71, 72, 73, 90, 128
Bernfaller, Canon, 198
Bex, 255
Bibliothèque Universelle, 251, 252, 255
Bigarrure, La Nouvelle, 122
Blaitière, Aiguille de, 114
Blanc, Mont, 69, 85, 106, 109, 114, 115, 141, 144, 146, 154, 158, 162, 165, 169, 170, 175, 176, 177, 178, 194, 197, 200, 239, 240, 241, 248
Blosset, Pierre, 32
Bois, Glacier des, 116, 120, 121
— Nan de, 105, 117
Bonneville, 91, 98, 104
Bosco, François de, 33, 34
Bossons, Glacier des, 177
Bourrit, 13, 64, 139, 147, 150, 151, 152, 153, 154, 155, 156, 159, 160, 162, 163, 175, 180, 205, 222, 251, 252, 255
Breithorn, 196
Bremble, Master John de, 4, 24
Breuil, 197
Breven, 126, 159
Brockedon, 200
Bueler, John, 80
Buet, 128, 130
— Glacier de, 132, 134, 139, 153, 157, 165, 240, 251, 253
Buffon, 151, 159
Bulle, 152
Burnet, Bishop, 162
— William, 73
Busching, 208

Cachat le Géant, 156, 159
Cagliostro, 222
Campbell, Mrs. and Miss, 241
Campfer, 154
Candale, Comte de, 212, 213, 215, 216, 217, 218
Canigou, Pic, 14, 15, 80
Cappeller, 45
Carect, Sebastien de, 32, 33
Carrier, Joseph, 162, 167
— Michel, 87, 181
Cartel, François, 192
Catin, Master, 33, 34
Cenis, Mont, 4, 6
Chamonix, 63, 82, 83, 85, 87, 93, 94, 96, 98, 101, 105, 106, 107, 108, 109, 110, 112, 116, 120, 121, 148, 153, 160, 162, 166, 167, 170, 175, 178, 189, 197, 240, 241, 242, 243, 248
Chapuis, Mlle., 180
Charles VIII., 28, 32, 36, 210
— Emanuel II., 12
Charmos, 160
Chède, Lac de, 158
Chevalier, Claude, 32
Clement, Count, 6
— M., 147
Clissold, 198, 241
Clive, Lord, 150
Club Alpin, Annuaire du, 122, 124 196, 242
Cluse, 91, 92, 104, 156
Cogne, 146
Collet, Reymond du, 32
Condamine, M. de la, 215
Contamines, 119
Coryate, Thomas, 10, 216
Côte, Montagne de la, 162, 168, 177, 178
Cotte, Jean Antoine, 35
Courmayeur, 64, 116, 153
Couterant, Madame, 157
Couttet, Jean-Marie, 162, 167
— Marie Joseph, 197
Coxe, Rev. William, 87, 128, 163, 204, 221

Craven, Lady, 157
Cullum, Lady, 243, 247
Cunzen, Dr. Peter, 38, 40, 41
Cusa, Michele, 194

Darcet, 219
Dauphiné, 28, 31, 32
Découverte, Rocher de la, 193
Delfico, Bernardino, 233
— Orazio, 215, 233, 238, 239
Denis di Borgo San Sepulcro, Father, 18
Dentan, M. le Ministre, 134
Dicæarchus, 215
Diétrich, Baron de, 219
Disentis, 183, 184
Dôme, Puy de, 232
Dompjulian de Beaupré, 28, 29, 31, 32, 33, 34, 215
Dore, Mont, 232
Dralet, M., 228
Dru, Aiguille du, 113, 114, 125, 126
Dufour Spitze, 197
— Théophile, 89
Duillier, Fatio de, 102, 162
Dumas the Elder, Alexandre, 163
Durier, Charles, 82, 163, 174, 240

Ebel, 64, 87, 182, 203, 204, 205
Echo des Alpes, 89
Eckershall, Miss Henrietta, 158
Eiger, 205
Eisenkramer, M. and Madame, 244
Empedocles, 1
Engelberg, 128
Epicurus, 54
Erin, Jean-Baptiste, 197
— Jean Gras, 197
Escher, 158, 251, 253, 254
Espeil, Pierre, 32
Estaubé, 229
Etna, 1, 3, 239
Evers, Ernst August, 206

Figuier, M. Louis, 228
Finsteraar Horn, 208
Finzens (Vincent), M. Nicolas, 190, 191, 192
Fischerhorn, 201
Fonds, Les, 131, 132, 133
Forbes, 200
Fouilly, 106, 108
Fourquet, 220
Freshfield, Douglas, 26, 27
Fribourg, 152
Frumsanus, Mount, 79
Furka, 206

Gabelhorn, Ober, 134
Galitzin, Prince de, 158, 251
Gallen, St., 47
Gauls, 225, 226
Géant, Col du, 64, 124, 153, 241
Gebhard, Dr., 210
Gemmi, 75, 202
Geneva, 72, 73, 86, 87, 88, 89, 90, 91, 99, 102, 103, 104, 117, 119, 121, 124, 125, 126, 128, 151, 153, 156, 160, 161, 175, 199, 242
Genève, Journal de, 240
Gersdorff, Baron de, 180
Gervais, St., 105, 108
Gesner, Conrad, 38, 43, 46, 49, 50, 51, 53, 56, 58, 60, 61, 63, 68, 81, 159
Getrilli, Signor D. Luigi, 235
Giordani, Dr. Pietro, 194, 196
— Punta, 194
Girod, Pierre, 103
Glarus, 52

Gletscher, 71, 72, 201
Gnifetti, Punta, 197
— Signor, 197
Goethe, 186, 220, 221, 228
Gonnet-Bencot, 32
Gorner Glacier, 193
Gothard, Saint, 140, 195, 206
Goûter, Aiguille du, 166
— Dôme du, 166
Grande-Côte, 246
Grebellius, Conrad, 47
Grenoble, 28, 29, 36
Grenville, Mr., 125
Grenz Glacier, The, 193
Gressoney, 188, 189, 193, 199
Gries Glacier, 193
Grimsel, 201, 202, 206, 207
Grindelwald, 73, 201, 203, 204
Grisons, 10
Gross Glockner, 205, 208, 209, 210
Gruner, 202, 203
Guibert, 204

HAAK, MR., 71
Hacquet, Professor, 208
Haddington, Lord, 87, 91
Hadrian, 3
Hæmus, Mount, 2
Haller, 184
Hamilton, Duke of, 125
— Mrs., 248
Hannibal, 3
Hanwelen, 79
Harsberg, Madame, 240
Hennin, Princess, 157
Hérault de Séchelles, 158
Hohe Licht, 191
Hohenwart, Sigmund von, 208
Holzwurm, Von, 208
Homann, 208
Hudson, Mr., 197
Humboldt, 62, 200, 215

IDA, MOUNT, 87
Inaccessible, Mont, 28, 29, 30, 32
Iobert, J., 32

JAILLOT, HUBERT, 218
Janssen, 215
Jardin, The, 242
Joanne, Paul, 28
Josephine, Empress, 241
Journal des Débats, 248
Jubié, Reynaud, 33
Jungfrau, 201, 204
Jura, Mount, 126, 144
Justel, Monsieur, 72
Juvenis, George, 32

KENNEDY, MR., 125
King, Rev. Samuel, 199

LALANDE, JEROME, 122, 151, 175, 179
Lasnebourg, 10
Lausanne, 44, 139, 150, 249, 250
Lauterbrunnen Valley, 204, 207
Lavetz, 191, 193
Lavoisier, 220
Lazius, Wolfgang, 208
Lebanon, Mount, 87
Lechaud, Plan de, 132, 134
Lenoir, M., 157
Leonardo da Vinci, 25, 26, 27, 188, 233
Lescarbot, Marc, 76
Leschevin, 175, 176, 254
Lévy, Yve, 31
Linthy, M. Sebastien, 190, 191, 192
Liotard, Antoine, 35
— Jean, 35, 36
— Pierre, 32
Lisge (Lisco), Jean Etienne, 190, 192

Lobié, John, 33
Lombard, Meunier, 162
Longman, Mr., 206, 207
Luc, Guillaume de, 134, 157
— Jean André de, 128, 129, 130, 131, 133, 134, 135, 136, 139, 141, 145, 149, 157, 159, 184, 221, 222, 235, 238
— the younger, Jean André de, 247
Lucerne, 45, 47, 58, 78, 80
Ludwigshohe, 197
Lys Joch, 193

Macugnaga, 188, 189, 193
Mallet, Mont, 114, 115
Mandeville, Sir John, 4
Marboré, 226
Marquis, M., 147
Martin, M., 102
Martel, Peter, 86, 87, 88, 101, 121, 122
Mathews, Mr. C. E., 87, 88, 93, 162, 163, 179
Matterhorn, 253
Maugiron, Marquis de, 122
Maule (or Môle), 91, 98, 120
Maynard, M. Henri, 197
Mela, Pomponius, 46
Merian, 71
Meyer the Third, Gottlieb, 208
— Hieronymus, 206
— Meyer the First, Johann Rudolf, 206
— the Second, Johann Rudolf, 206
— Master, 77
Michitelli, Signor Eugenio, 235
— de Bigorre, Pic du, 14, 212, 218, 219, 222
Molinatti, 197, 199
"Monboso," 25, 26, 27
Mönch, 207
Monge, 219
Montaño, Francisco, 212
Montanvert, 102, 106, 107, 108, 109, 120, 160, 164, 240, 241
Montées, Les, 105, 108
Moore, Dr. John, 125, 126
Moriah, Mount, 1
Moro, Monte, 188
Morozzo, Comte de, 193
Moses, 1, 129, 160
Mulets, Grands, 169, 245, 257
Müller, Johann, 38, 39, 50
Mummery, Mr., 114, 231
Muraltus, Mr., 71
Murith, M., 139, 140, 141, 142, 143, 146, 147
Murray, John, 7, 11, 12, 13
Myconius, 46, 47, 51

Naters, 207
Neuchâtel, Lake of, 144
Neville, Mr. Aldworth, 87
Newton, Sir Isaac, 75, 90, 103, 121
Noah, 1
Noailles, Marshal de, 218
Novalesa, 5, 7, 10, 13

Oberaarjoch, 206
Oberland, 201, 202, 204, 207
Oldenhorn, 248, 249
Ollen, Col d', 27
Olympus, Mount, 2, 21, 212, 216, 217, 235
Ornano, 235, 238
Ortler Spitz, 205, 208, 210
Ossa, Mount, 2
Otll, Jh., 253

Paccard, François, 162, 167
— Michel, 159, 162, 163, 168, 169, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180

Paillon, Mlle. Mary, 242, 244
Palassou, 219
Paradin, Guillaume, 69
Paradis, Marie, 240
Parnassus, Mount, 2
Parrot, Frédéric, 189, 197
— Spitze, 197
Pasumot, 219
Pays, Monsieur Le, 82, 83
Pelion, Mount, 2
Perdu, Mont, 218, 221, 222, 227, 228, 231
Perrin, M. André, 82
Peter III. of Arragon, 14, 15, 16, 17, 27, 80
Petrarch, 18
Petronelle, Sainte, 203
Philip of Macedon, 1
Pichler, Joseph, 210
Pictet, M., 146, 157, 251, 252, 255
Pierre-à-l'Echelle, 245
Pilatus, 38, 43, 44, 45, 50, 51, 53, 75, 81
Pisgah, Mount, 1
Plantade, M., 218
Plateau, Grand, 165, 171, 199
Plattner, 51
Pliny, 67
Pococke, Dr., 87, 90, 148
Polybius, 2
Poniatouski, Prince, 157
Popocateptl, 212
Price, Mr., 87
Prussia, Prince Henry of, 151, 159

RAMOND DE CARBONNIÈRE, 14, 62, 215, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231
Raulet, M. Lucien, 122
Rebmann, Pastor, 201
Reboul, 219, 220, 222
Reeve, Henry, 18
Reichard, 87
Rheinwaldhorn, 182
Rhodope, Mount, 2
Richter, Dr. J. P., 25, 26
Riffel Alp, 193
Rigi, 7
Robert, Gaspard, 32
Rochas, Eugène de, 35, 37
Rochefoucauld, Louis Alexandre de la, 122, 123, 124, 125, 153
Roche Melon, 5, 7, 8, 10, 11, 12, 14, 216
Rohan, Cardinal, 221, 222
Rold, M., 151
Romuleus, Mount, 5
Romulus, King, 5, 6
Rosa, Monte, 26, 27, 188, 193, 194, 195, 196, 197, 198, 199, 233
Rotario d'Asti, 12, 13
Roththal Sattel, 207
Rousseau, 136, 223, 225, 228
Royal Geographical Society, Proceedings of the, 26, 27
Royal Society, English, 74, 75, 86
— — Philosophical Transactions of the, 71, 72

SAINT OURS, 157
Sannetsch, 64
Salanches, 92, 93, 98, 104, 105, 108, 156
Salève, 92, 95
Salimbene, Fra, 14, 15
Salis, Ulysses von, 205
Salm - Reifferscheid - Krantheim, Franz Altgraf von, 208, 209
Salmshöhe, 209
Salz, Col de, 191
Sasso d'Italia, Gran', 233, 234, 238, 239

Saussure, De. 62, 146, 149, 154, 156, 157, 159, 162, 163, 175, 183, 184, 189, 197, 200, 208, 222, 237, 248
Sauvage, Guillaume, 33
Savoy, 5, 8, 12, 63, 83, 89, 90, 91, 107, 123, 125, 254
Scheideck, 201
Scheuchzer, Professor, 62, 68, 69, 74, 75, 78, 81, 90, 188
Schlagintweit, 188, 200
Schorer, Christopher, 80
Schwarzberg Weissthor, 188
Scopi, The, 182
Selva, 185
Seneca, 3
Sennwald, 80
Servet, Master Cathelin, 33
Servite, 185
Servoz, 92, 104, 105, 109, 252
Shuckburgh, Sir George, 98, 201
Signal de Retord, 248
— Kuppe, 197
Silberhorn, 205
Silber Sattel, 197
Silius Italicus, 64
Silvon, Barrachin, 33
Simler, Josias, 63, 64, 65, 67, 74
Simmenthal, 41, 42
Simpschen (or Zimpssen), 251, 252
Sinai, Mount, 1
Sixt, 131, 132, 134
Sloane, Dr. Hans, 73
Smyth, Mr. C., 197
— Mr. G., 197
Spartacus, 3
Spartianus, 3
Spescha, Father Placidus à, 182, 183, 184, 185
Squindo, Jean Pierre, 189
Stillingfleet, Benjamin, 86, 87
Stockgron, 182
Stockhorn, 38, 40, 41
Stockhorniad, The, 38, 39
Stoppen, Count Karol de, 245
Strabo, 2, 211
Strahleck, 202
Studer, 182
Sulzbach, Prince of, 93
Susa, 5

Taconnay, Glacier de, 168
Taugwald, Mathias Z., 197
Tavetsch, 71, 185
Taygetus, Mount, 2
Terni, 92
Theobald, Dr., 182
Théodule Pass, 64
Thiollier, Joseph, 35, 37
Thou, De, 212, 213, 216, 217
Tinner, John, 79
— Thomas, 80
Tissai, Victor, 162
Titlis, 128
Tödi, 185
Torricelles, The, 144
Torricelli, 103
Tournier, Jean-Michel, 167
Trembley, Mr., 221
Tronchin, Dr., 123
Trons, 183, 185
Turin, 8, 10, 144, 153, 194, 199
— Academy of Sciences, 176, 193
Tyndall, 62, 69, 215
Tyrol, 185, 195, 201, 210

Ulrich, Professor, 197
Upton, Mr., 125
Uzielli, Signor, 26

Vadianus, 46, 47, 49, 50, 60
Vallais, Pays de, 126, 139, 192, 197, 202, 203
Valorsine, 109, 117
Valsoret, Glacier de la, 140
Valvassor, 208

Vaucluse, 18
Vaudois, 188
Vélan, 139, 140, 142, 144, 145, 146, 147
Ventoux, Mont, 18
Vernon, Admiral, 98
Vesco, Signor P. L., 193
Vesuvius, 3, 239
Vevay, 144, 152
Victor Emanuel II., 12
Vidal, 219, 221, 222
Viesch Glaciers, 203
Villamont, Seigneur de, 7, 10, 12
Vincent, A., 197
— J. N., 197, 198
— Pyramide, 197, 198
Viso, Monte, 26
Vogel, 51, 52
Voirons, The, 148
Voragine, Jacobus de, 43

Wagner, 79, 201
Wall, Daniel, 64
Warens, Madame de, 159
Weiss, Herr, 206
Welden, Baron Ludwig von, 197, 198, 199, 200
Wetterlücke, 204
Whymper, Mr., 178, 215
Williamson, Mr., 91
Windham, William, 86, 87, 88, 122, 123, 148
Woodley, 154, 156
Wurtemburg, Duke, Ulrich of, 46

Xenagoras, 2, 3, 215, 216
Xenophon, 64, 67
Xylotectus, 46, 47

Zermatt, 64, 193
Zschokke, Herr, 207
Zumstein (Delapierre) Jean Joseph, 190, 192, 197, 198, 200
— Spitze, 197
Zurich, 38, 47, 51, 53, 63, 71, 73, 74, 79, 254

THE END.

BRADBURY, AGNEW, & CO. LD., PRINTERS, LONDON AND TONBRIDGE.